aiwa SERVICE

XH-A1000 EZ,K

SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : 6ZM-1 AR3NM
BASIC CD MECHANISM : AZG-1 YZD3RDM

SYSTEM	CD	SPEAKERS	REMOTE
XH–A1000	CX–A1000	SX–WA1000 SX-C1800 SX–R1800	RC–AAS01

• If requiring information about the CD mechanism, see Service Manual of AZG-1

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S/M Code No. 09-006-421-4R2

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SPECIFICATIONS

Main unit CX-A1000

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	16.8 dBf
Antenna terminal	75 ohms (unbalanced)

<MW Tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW Tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Mid-high frequency amplifier

Power output **Front**
Rated: 80 W + 80 W
(8 ohms, T.H.D. 1 %, 200 Hz-20 kHz)
Reference: 100 W + 100 W
(8 ohms, T.H.D. 10 %, 200 Hz-20 kHz)
Rear (Surround)
Rated: 80 W + 80 W (8 ohms, T.H.D. 1 %, 1 kHz)
Reference: 100 W + 100 W
(8 ohms, T.H.D. 10 %, 1 kHz)
EZ:
DIN MUSIC POWER: 160 W+60W
Center
Rated: 80 W (8 ohms, T.H.D. 1 %, 1 kHz)
Reference: 100 W (8 ohms, T.H.D. 10 %, 1 kHz)

Total harmonic distortion 0.15 % (40 W, 1 kHz, 8 ohms, DIN AUDIO/Front)

Low frequency + Sub woofer amplifier

Power output
Rated: 200 W + 200 W (6 ohms, T.H.D. 1 %, 100 Hz)
Reference: 250 W + 250 W
(6 ohms, T.H.D. 10 %, 100 Hz)
EZ:
DIN MUSIC POWER: 320 W+320 W

Total harmonic distortion 0.15 % (100 W, 100 Hz, 6 ohms, DIN AUDIO/Front)

Inputs
AUX: 310 mV
PHONO: 400 mV
VIDEO1, VIDEO2, VIDEO3: 310 mV
5.1CH INPUT (adjustable)
FRONT: 300 mV
SURROUND: 300 mV
CENTER: 600 mV
SUB WOOFER: 300 mV
MIC1, MIC2: 1.4 mV (20 kohms)

Outputs
CD DIGITAL OUT (OPTICAL)
SPEAKERS:
LOW + SUB WOOFER: 6 ohms
HIGH: 8 ohms
SURROUND SPEAKERS: accept speakers of 8 – 16 ohms
CENTER SPEAKER: accepts speaker of 8 ohms or more
PHONES (stereo jack): accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz – 15000 Hz
Signal-to noise ratio	60 dB (Dolby B NR ON, CrO2 tape peak level, above 400 Hz)
Recording system	AC bias
Heads	Recording/playback head x 1, erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D/A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.03 % (1 kHz, 0 dB)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	350 W
Dimensions of main unit (W x H x D)	360 x 372 x 423 mm
Weight of main unit	18.5 kg

Speaker system SX-WA1000

Cabinet type	4 way, built-in subwoofer
Speakers	Subwoofer: 220 mm cone type Woofer: 160 mm cone type Tweeter: 60 mm cone type Super tweeter: 20 mm ceramic type
Impedance	6 ohms / 8 ohms
Output sound pressure level	89 dB/W/m
Dimensions (W x H x D)	250 x 592 x 300 mm
Weight	11.7 kg

Speaker system SX-R1800

Speakers	Full-range: 100 mm x 1, cone type
Impedance	8 ohms
Dimensions (W x H x D)	120 x 230 x 175 mm
Weight	1.9 kg

Speaker system SX-C1800

Speakers	Full-range: 100 mm x 2, cone type
Impedance	8 ohms
Dimensions (W x H x D)	430 x 120 x 175 mm
Weight	2.7 kg

• Design and specifications are subject to change without notice.

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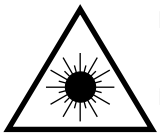
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

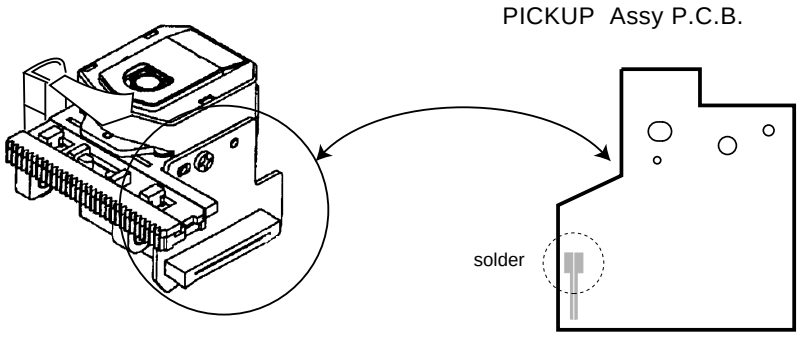
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSM – 880CAB)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

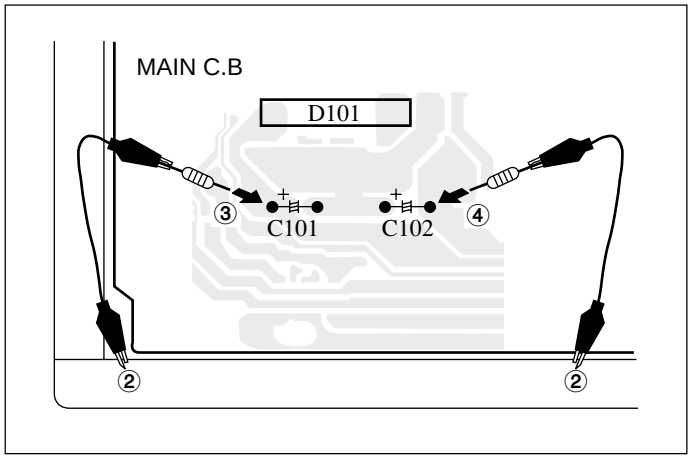


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

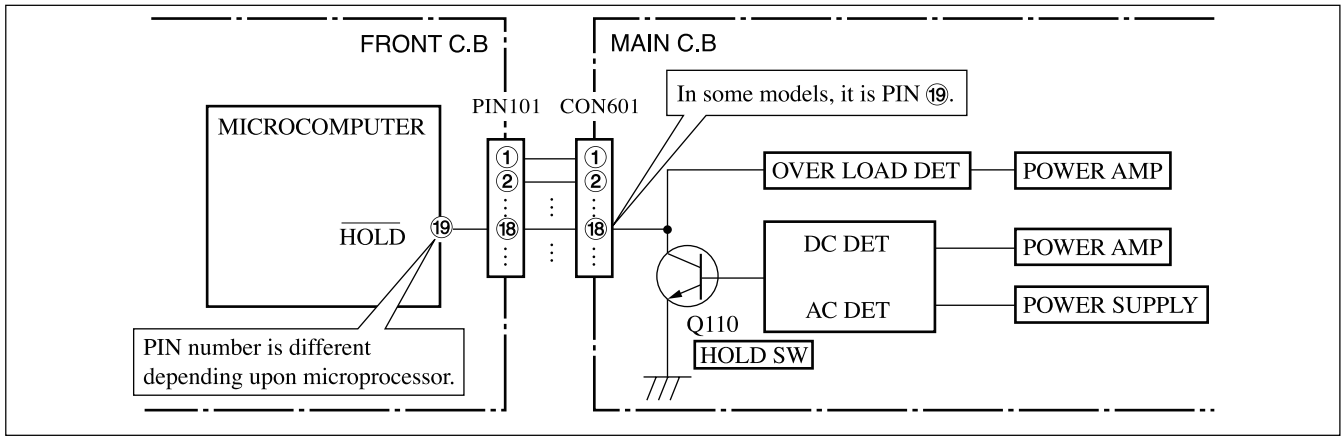


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

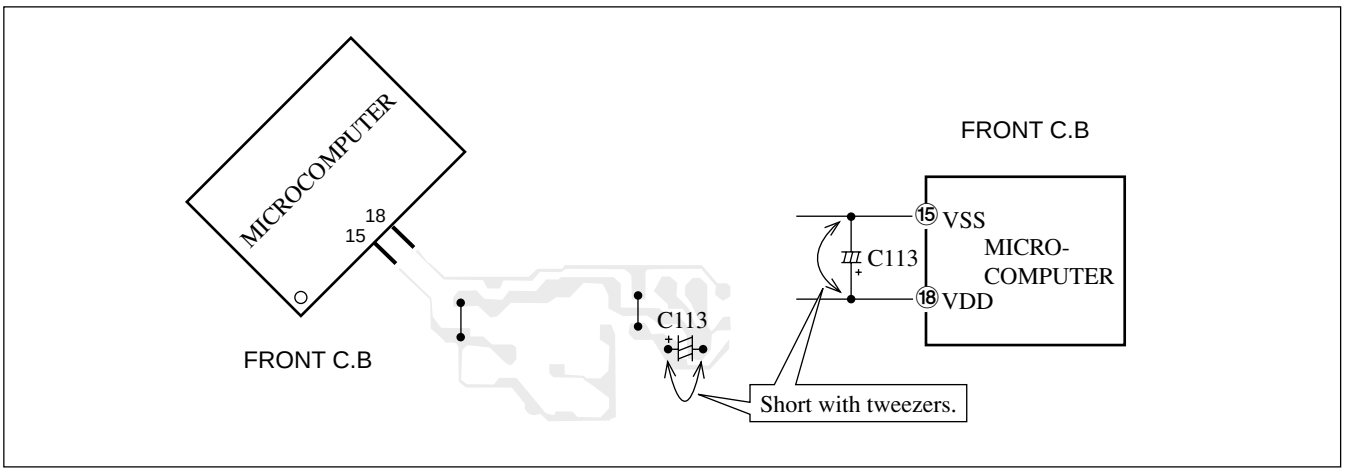


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

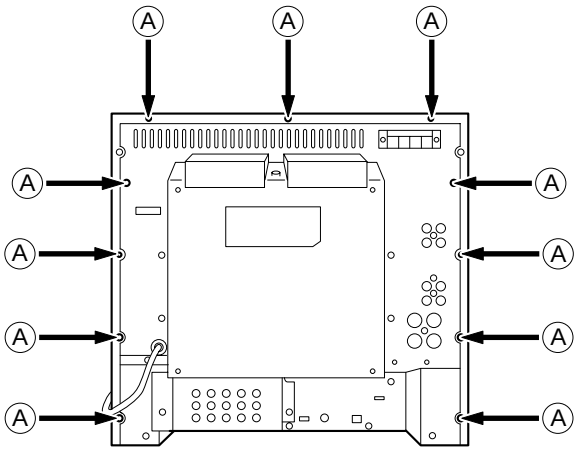
2-3. Confirmation of soldering state of MICROCOMPUTER

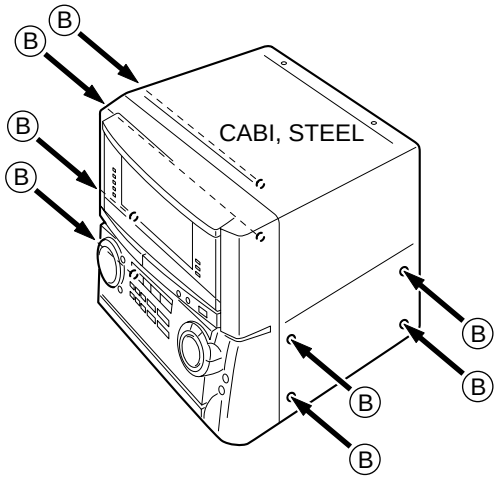
Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

DISASSEMBLY INSTRUCTIONS

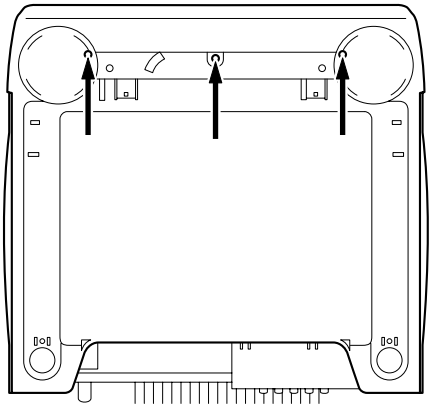
CD disassembling procedure

1. Remove the 19 screws (Ⓐx11, Ⓑx8) and remove the CABI, STEEL.

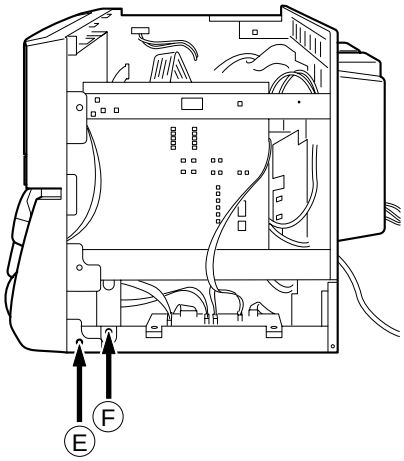


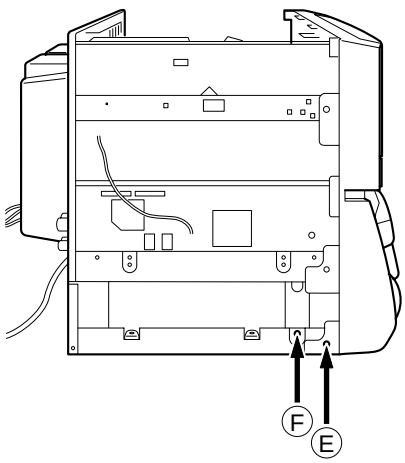


2. Remove the 3 screws from the bottom of the unit.

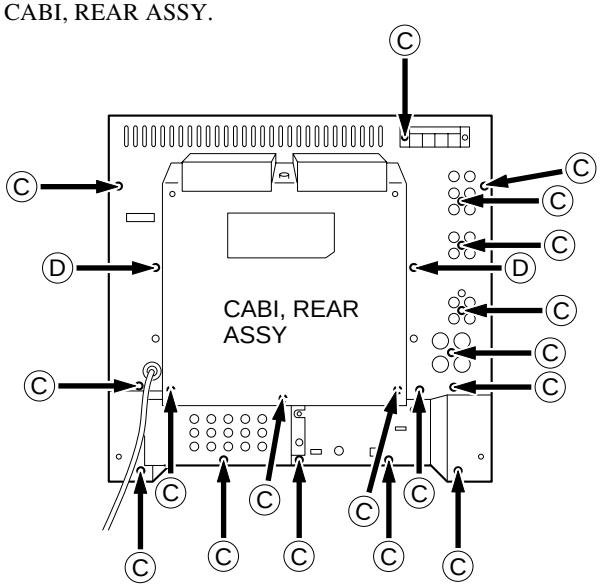


3. Remove the 4 screws (Ⓔx2, Ⓕx2) from both sides.

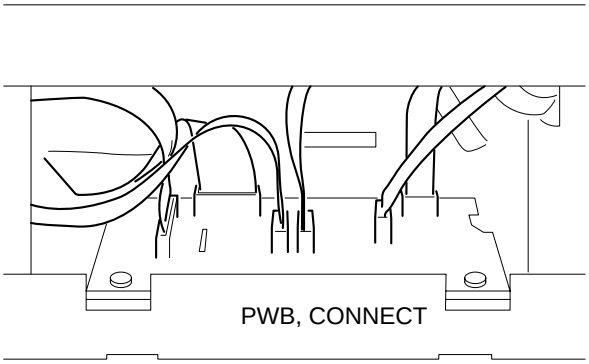




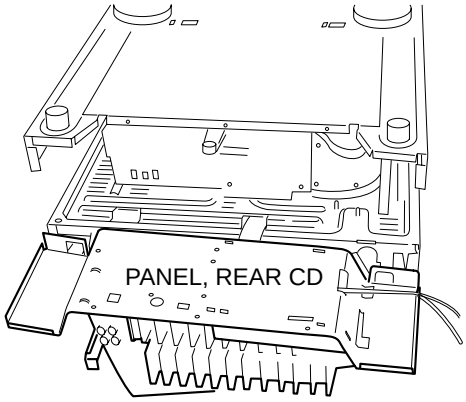
4. Remove the 20 screws (Ⓒx18, Ⓓx2) and remove the CABI, REAR ASSY.



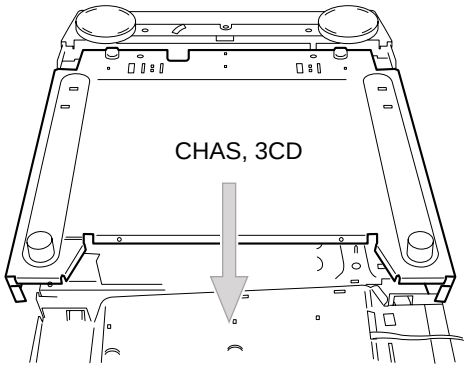
5. Remove the 6 FFCs from the PWB, CONNECT.



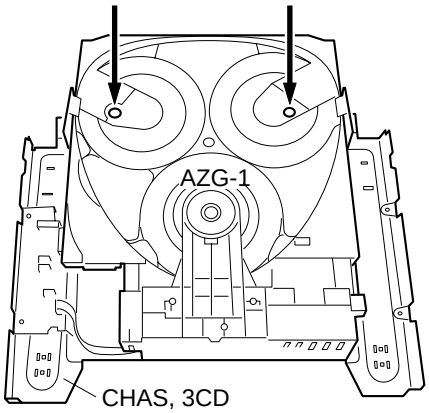
6. Remove the PANEL, REAR CD.



7. Remove the CHAS, 3CD together with the AZG-1.



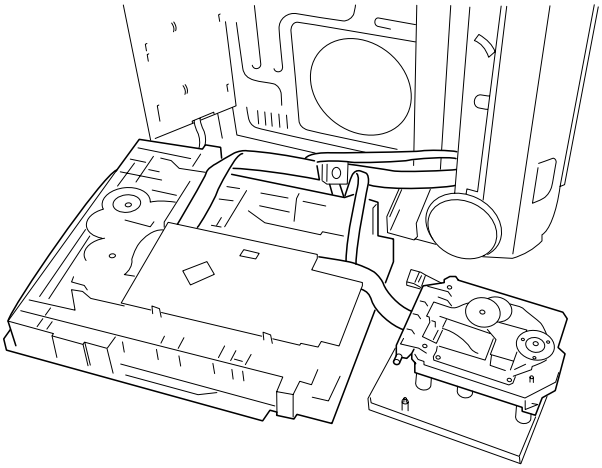
8. Remove the 2 screws and remove the AZG-1 from the CHAS, 3CD.



CD service position

The AZG-1 can be repaired while the power is on by using the jig introduced in the Service Technical Information (SI-98-028).

1. Procedure
   Connect the jig as shown below.



ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-020-454-010		IC,DN6851
	87-A21-406-040		C-IC,LC87F65C8A
	87-A21-419-040		IC,NJM14558MD-TE2
	87-A20-914-010		IC,SPS-442-1-F
	87-A20-355-010		IC,CXA1553P
	87-A20-783-040		C-IC,BA7762AFS
	87-A21-023-040		C-IC,BA3835F
	87-A21-022-040		C-IC,BA3880FS
	87-017-915-080		IC,BU4094BCF
	87-A21-031-040		C-IC,BU4551BF
	87-A21-202-040		C-IC,M62445AFP
	87-A21-481-040		C-IC,HD74HC4051FP
	87-070-127-110		IC,LC72131D
	87-A20-913-010		IC,LA1837NL
	87-A20-440-040		C-IC,BU1920FS
	87-A21-097-040		C-IC,M62463AFP
	87-A21-015-040		C-IC,M62491FP
	87-A20-820-010		IC,BA7625
	87-017-917-080		IC,BU4066BCF
	87-017-726-080		IC,BU4052BCF
TRANSISTOR			
	89-213-702-010		TR,2SB1370E
	87-A30-087-080		C-FET,2SK2158
	87-A30-075-080		C-TR,2SA1235F
	89-327-143-080		C-TR,2SC2714(O)
	87-A30-076-080		C-TR,2SC3052F
	89-333-266-080		C-TR,2SC3326B
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-080		C-TR,CMBT5551
	87-A30-142-040		C-TR,DTA123EKA
	87-026-580-080		C-TR,DTA123JK
	87-A30-159-080		C-TR,KTA1298Y
	87-A30-073-080		C-TR,RT1N141C
	87-A30-074-080		C-TR,RT1P141C
	87-A30-072-080		C-TR,RT1P144C
	87-A30-202-080		C-TR,RT1P441C
	87-A30-162-010		FET,2SK2937
	87-A30-186-010		FET,2SK3053
	89-109-521-080		TR,2SA952K
	87-A30-374-010		TR,2SB1588A
	87-A30-375-010		TR,2SD2439A
	87-A30-190-080		TR,CC5551
	87-A30-240-080		TR,CSA1585BC
	87-A30-234-080		TR,CSC4115BC
	87-A30-047-080		TR,CSD655E
	87-026-245-080		TR,DTC114ES
	87-A30-097-010		TR,FN1016
	87-A30-098-010		TR,FP1016
	87-026-609-080		TR,KTA1266GR
	87-026-610-080		TR,KTC3198GR
	87-A30-198-080		TR,KTC3199GR
	87-A30-269-040		C-FET,2SJ461-T1
DIODE			
	87-A40-224-010		DIODE,GBU8DL
	87-A40-341-080		ZENER,MTZJ36A
	87-A40-004-080		ZENER,MTZJ16A
	87-A40-344-080		ZENER,MTZJ6.2C
	87-017-932-080		ZENER,MTZJ6.2B
	87-A40-002-080		ZENER,MTZJ5.1C
	87-A40-438-080		ZENER,MTZJ4.7A
	87-A40-234-080		ZENER,MTZJ5.6A
	87-017-149-080		ZENER,HZS6A2L
	87-A40-442-080		ZENER,MTZJ9.1A
	87-A40-269-080		C-DIODE,MC2836
	87-A40-270-080		C-DIODE,MC2838
	87-A40-313-080		C-DIODE,MC2840
	87-070-274-080		DIODE,1N4003 SEM
	87-020-465-080		DIODE,1SS133
	87-A40-488-080		DIODE,1SS244
	87-A40-646-010		DIODE,FMB-G16L
	87-A40-345-080		ZENER,MTZJ10C
	87-070-136-080		ZENER,MTZJ5.1B
	87-A40-437-080		ZENER,MTZJ4.3B
	87-A40-349-080		ZENER,MTZJ7.5C
MAIN C.B			
C1	87-012-369-080		C-CAP,S 0.047-50F
C2	87-012-369-080		C-CAP,S 0.047-50F
C3	87-012-368-080		C-CAP,S 0.1-50 F
C4	87-012-368-080		C-CAP,S 0.1-50 F
C5	87-012-368-080		C-CAP,S 0.1-50 F
C6	87-012-368-080		C-CAP,S 0.1-50 F
C9	87-A11-939-090		CAP,E 4700-35
C10	87-A11-939-090		CAP,E 4700-35
C21	87-010-385-080		CAP,ELECT 220-25V
C22	87-010-385-080		CAP,ELECT 220-25V
C23	87-010-247-080		CAP,ELECT 100-50V
C24	87-010-247-080		CAP,ELECT 100-50V
C25	87-010-430-080		CAP,ELECT 100-63
C26	87-010-263-080		CAP,ELECT 100-10V
C29	87-010-247-080		CAP,ELECT 100-50V
C30	87-010-235-080		CAP,E 470-16 SME
C31	87-010-235-080		CAP,E 470-16 SME
C61	87-010-260-080		CAP,ELECT 47-25V
C62	87-010-403-080		CAP,ELECT 3.3-50V
C91	87-010-401-080		CAP,ELECT 1-50V
C92	87-010-401-080		CAP,ELECT 1-50V
C93	87-010-380-080		CAP,ELECT 47-16V
C100	87-018-209-080		CAP,TC U 0.1-50 ZF
C103	87-010-401-080		CAP,ELECT 1-50V
C104	87-010-401-080		CAP,ELECT 1-50V
C105	87-010-322-080		C-CAP,S 100P-50 CH
C106	87-010-322-080		C-CAP,S 100P-50 CH
C112	87-010-187-080		C-CAP,S 5600P-50 KB
C113	87-010-187-080		C-CAP,S 5600P-50 KB
C115	87-010-196-080		C-CAP,S 0.1-25 ZF
C116	87-010-196-080		C-CAP,S 0.1-25 ZF
C120	87-010-405-080		CAP,ELECT 10-50V
C121	87-010-405-080		CAP,ELECT 10-50V
C137	87-010-322-080		C-CAP,S 100P-50 CH
C138	87-010-322-080		C-CAP,S 100P-50 CH
C148	87-010-197-080		CAP,CHIP 0.01 DM
C149	87-010-197-080		CAP,CHIP 0.01 DM
C150	87-010-197-080		CAP,CHIP 0.01 DM
C151	87-010-401-080		CAP,ELECT 1-50V
C152	87-010-401-080		CAP,ELECT 1-50V
C153	87-010-405-080		CAP,ELECT 10-50V
C154	87-010-405-080		CAP,ELECT 10-50V
C155	87-010-401-080		CAP,ELECT 1-50V
C156	87-010-401-080		CAP,ELECT 1-50V
C157	87-010-322-080		C-CAP,S 100P-50 CH
C158	87-010-322-080		C-CAP,S 100P-50 CH
C159	87-010-196-080		C-CAP,S 0.1-25 ZF
C160	87-010-196-080		C-CAP,S 0.1-25 ZF
C161	87-010-197-080		C-CAP,S 0.01-25 KB
C162	87-010-197-080		C-CAP,S 0.01-25 KB
C229	87-010-993-080		C-CAP,S 0.056-25 B
C230	87-010-993-080		C-CAP,S 0.056-25 B
C231	87-010-196-080		CHIP CAPACITOR,0.1-25
C232	87-010-196-080		CHIP CAPACITOR,0.1-25
C233	87-010-190-080		C-CAP,S 0.01-50 ZF
C234	87-010-190-080		C-CAP,S 0.01-50 ZF
C237	87-010-322-080		C-CAP,S 100P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C238	87-010-322-080		C-CAP,S 100P-50 CH
C300	87-018-209-080		CAP,TC U 0.1-50 ZF
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C311	87-010-198-080		CAP,CHIP 0.022
C312	87-010-198-080		CAP,CHIP 0.022
C315	87-010-178-080		CHIP CAP,1000P
C316	87-010-178-080		CHIP CAP,1000P
C317	87-012-142-080		CAP,S 0.33-16
C318	87-012-142-080		CAP,S 0.33-16
C319	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C320	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C321	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C322	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C324	87-010-260-080		CAP,ELECT 47-25V
C325	87-010-370-080		CAP,E 330-6.3 SME
C327	87-010-404-080		CAP,ELECT 4.7-50V
C328	87-010-404-080		CAP,ELECT 4.7-50V
C332	87-010-196-080		CHIP CAPACITOR,0.1-25
C335	87-010-401-080		CAP,ELECT 1-50V
C336	87-010-401-080		CAP,ELECT 1-50V
C337	87-010-196-080		CHIP CAPACITOR,0.1-25
C339	87-010-196-080		CHIP CAPACITOR,0.1-25
C340	87-010-196-080		CHIP CAPACITOR,0.1-25
C351	87-012-140-080		CAP,470P
C352	87-012-140-080		CAP,470P
C354	87-010-175-080		CAP,560P
C355	87-010-178-080		CHIP CAP,1000P
C356	87-010-260-080		CAP,ELECT 47-25V
C357	87-010-197-080		CAP,CHIP 0.01 DM
C358	87-010-183-080		C-CAP,S 2700P-50 B
C359	87-010-183-080		C-CAP,S 2700P-50 B
C360	87-010-183-080		C-CAP,S 2700P-50 B
C370	87-010-196-080		CHIP CAPACITOR,0.1-25
C371	87-010-181-080		C-CAP,S 1800P-50 KB
C372	87-010-181-080		C-CAP,S 1800P-50 KB
C373	87-010-180-080		C-CAP,S 1500P-50 KB
C374	87-010-180-080		C-CAP,S 1500P-50 KB
C375	87-010-545-080		CAP,ELECT 0.22-50V
C376	87-010-545-080		CAP,ELECT 0.22-50V
C378	87-010-196-080		CHIP CAPACITOR,0.1-25
C381	87-010-197-080		CAP,CHIP 0.01 DM
C382	87-010-318-080		C-CAP,S 47P-50 CH
C383	87-010-197-080		CAP,CHIP 0.01 DM
C384	87-010-402-080		CAP,ELECT 2.2-50V
C385	87-010-184-080		CHIP CAPACITOR,3300P(K)
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C388	87-012-156-080		C-CAP,S 220P-50 CH
C400	87-010-186-080		C-CAP,S 4700P-50 KB
C401	87-010-196-080		CHIP CAPACITOR,0.1-25
C402	87-010-260-080		CAP,ELECT 47-25V
C403	87-010-404-080		CAP,ELECT 4.7-50V
C404	87-010-404-080		CAP,ELECT 4.7-50V
C405	87-010-404-080		CAP,ELECT 4.7-50V
C406	87-010-404-080		CAP,ELECT 4.7-50V
C407	87-010-188-080		CAP,CHIP 6800P
C408	87-010-188-080		CAP,CHIP 6800P
C409	87-012-140-080		CAP,470P
C410	87-012-140-080		CAP,470P
C411	87-010-404-080		CAP,ELECT 4.7-50V
C412	87-010-404-080		CAP,ELECT 4.7-50V
C413	87-010-404-080		CAP,ELECT 4.7-50V
C414	87-010-404-080		CAP,ELECT 4.7-50V
C415	87-010-197-080		CAP,CHIP 0.01 DM
C416	87-010-197-080		CAP,CHIP 0.01 DM
C417	87-010-195-080		C-CAP,S 0.068-25 F
C418	87-010-956-080		CHIP-CAP,S 0.068-25B
C419	87-010-260-080		CAP,ELECT 47-25V
C421	87-012-140-080		CAP,470P
C422	87-012-140-080		CAP,470P
C451	87-010-401-080		CAP,ELECT 1-50V
C452	87-010-401-080		CAP,ELECT 1-50V
C454	87-010-402-080		CAP,ELECT 2.2-50V
C457	87-010-196-080		CHIP CAPACITOR,0.1-25
C458	87-010-196-080		CHIP CAPACITOR,0.1-25
C461	87-010-544-080		CAP,ELECT 0.1-50V
C471	87-010-402-080		CAP,ELECT 2.2-50V
C481	87-010-196-080		CHIP CAPACITOR,0.1-25
C500	87-010-186-080		C-CAP,S 4700P-50 KB
C601	87-010-197-080		C-CAP,S 0.01-25 KB
C602	87-010-197-080		C-CAP,S 0.01-25 KB
C603	87-010-185-080		C-CAP,S 3900P-50 KB
C604	87-010-185-080		C-CAP,S 3900P-50 KB
C607	87-010-318-080		C-CAP,S 47P-50 CH
C608	87-010-318-080		C-CAP,S 47P-50 CH
C611	87-018-134-080		CAP,TC U 0.01-16 NY
C612	87-010-322-080		C-CAP,S 100P-50 CH
C613	87-016-081-080		C-CAP,S 0.1-16 RK
C614	87-016-081-080		C-CAP,S 0.1-16 RK
C617	87-A10-301-080		CAP,M 0.033-50 J
C618	87-A10-301-080		CAP,M 0.033-50 J
C619	87-010-185-080		C-CAP,S 3900P-50 B
C620	87-010-185-080		C-CAP,S 3900P-50 B
C621	87-010-401-080		CAP,ELECT 1-50V
C622	87-010-401-080		CAP,ELECT 1-50V
C627	87-010-196-080		CHIP CAPACITOR,0.1-25
C628	87-010-322-080		C-CAP,S 100P-50 CH
C629	87-010-405-080		CAP,ELECT 10-50V
C630	87-010-213-080		C-CAP,S 0.015-50 B
C631	87-010-992-080		C-CAP,S 0.047-25 B
C632	87-010-263-080		CAP,ELECT 100-10V
C633	87-010-263-080		CAP,ELECT 100-10V
C634	87-010-196-080		CHIP CAPACITOR,0.1-25
C635	87-010-196-080		CHIP CAPACITOR,0.1-25
C636	87-010-992-080		C-CAP,S 0.047-25 B
C637	87-010-183-080		C-CAP,S 2700P-50 B
C640	87-010-314-080		C-CAP,S 22P-50V
C641	87-010-196-080		CHIP CAPACITOR,0.1-25
C642	87-010-196-080		CHIP CAPACITOR,0.1-25
C643	87-010-196-080		CHIP CAPACITOR,0.1-25
C644	87-010-196-080		CHIP CAPACITOR,0.1-25
C645	87-010-196-080		CHIP CAPACITOR,0.1-25
C646	87-010-196-080		CHIP CAPACITOR,0.1-25
C661	87-010-178-080		C-CAP,S 1000P-50 KB
C662	87-010-178-080		C-CAP,S 1000P-50 KB
C663	87-010-178-080		C-CAP,S 1000P-50 KB
C664	87-010-178-080		C-CAP,S 1000P-50 KB
C677	87-010-196-080		CHIP CAPACITOR,0.1-25
C678	87-010-196-080		CHIP CAPACITOR,0.1-25
C680	87-010-196-080		CHIP CAPACITOR,0.1-25
C681	87-010-197-080		CAP,CHIP 0.01 DM
C731	87-010-498-080		CAP,ELECT 10-16V
C732	87-010-196-080		CHIP CAPACITOR,0.1-25
C733	87-010-196-080		CHIP CAPACITOR,0.1-25
C734	87-012-156-080		C-CAP,S 220P-50 CH
C735	87-010-178-080		CHIP CAP,1000P
C736	87-010-196-080		CHIP CAPACITOR,0.1-25
C740	87-010-322-080		C-CAP,S 100P-50 CH
C741	87-010-178-080		CHIP CAP,1000P
C801	87-010-176-080		C-CAP,S 680P-50 SL
C802	87-010-176-080		C-CAP,S 680P-50 SL
C803	87-010-958-080		CHIP-CAP,S 0.01-25BJ
C804	87-010-958-080		CHIP-CAP,S 0.01-25BJ
C805	87-010-958-080		CHIP-CAP,S 0.01-25BJ
C806	87-010-958-080		CHIP-CAP,S 0.01-25BJ
C807	87-010-401-080		CAP,ELECT 1-50V
C808	87-010-401-080		CAP,ELECT 1-50V
C809	87-010-196-080		CHIP CAPACITOR,0.1-25
C810	87-010-112-080		CAP,ELECT 100-16V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C811	87-010-070-080		CAP,ELECT 0.47-50V
C812	87-010-070-080		CAP,ELECT 0.47-50V
C813	87-010-401-080		CAP,ELECT 1-50V
C814	87-010-494-080		CAP,ELECT 1-50V M 5L
C815	87-010-492-080		CAP,ELECT 0.33-50V
C816	87-010-492-080		CAP,ELECT 0.33-50V
C817	87-010-221-080		CAP,ELECT 470-10V
C818	87-A10-891-080		CAP,E 4.7-25 SME(K)
C819	87-A10-800-080		C-CAP,S 6800P-16 J B CM
C820	87-010-374-080		CAP,ELECT 47-10V
C821	87-010-196-080		CHIP CAPACITOR,0.1-25
C822	87-A10-804-080		C-CAP,S 0.1-25 J B
C824	87-010-374-080		CAP,ELECT 47-10V
C825	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-544-080		CAP,ELECT 0.1-50V
C830	87-016-492-080		C-CAP,S 0.33-16 FZ
C831	87-010-971-080		C-CAP,S 4700P-50 B J
C832	87-012-349-080		C-CAP,S 1000P-50 CH
C833	87-A10-793-080		C-CAP,S 0.12-16 K B
C834	87-A11-182-080		C-CAP,S 0.27-16 J B
C835	87-A11-182-080		C-CAP,S 0.27-16 J B
C836	87-A11-183-080		C-CAP,S 0.12-16 J B
C837	87-010-971-080		C-CAP,S 4700P-50 B J
C838	87-012-349-080		C-CAP,S 1000P-50 CH
C839	87-010-805-080		CAP,S 1-16
C840	87-010-401-080		CAP,ELECT 1-50V
C841	87-A10-799-080		C-CAP,S 5600P-16 J B CM
C842	87-A10-802-080		C-CAP,S 0.047-16 J B CM
C843	87-A10-229-080		C-CAP,S 0.68-10 K W5
C844	87-012-393-080		C-CAP,S 0.22-16 R K
C845	87-012-393-080		C-CAP,S 0.22-16 R K
C846	87-010-404-080		CAP,ELECT 4.7-50V
C847	87-010-404-080		CAP,ELECT 4.7-50V
C848	87-012-393-080		C-CAP,S 0.22-16 R K
C849	87-012-393-080		C-CAP,S 0.22-16 R K
C850	87-016-081-080		C-CAP,S 0.1-16 RK
C851	87-A10-802-080		C-CAP,S 0.047-16 J B CM
C852	87-A10-802-080		C-CAP,S 0.047-16 J B CM
C853	87-016-081-080		C-CAP,S 0.1-16 RK
C854	87-016-081-080		C-CAP,S 0.1-16 RK
C855	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C856	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C857	87-016-081-080		C-CAP,S 0.1-16 RK
C859	87-010-402-080		CAP,ELECT 2.2-50V
C861	87-010-196-080		CHIP CAPACITOR,0.1-25
C863	87-010-196-080		CHIP CAPACITOR,0.1-25
C867	87-016-492-080		C-CAP,S 0.33-16 FZ
C868	87-A10-060-080		C-CAP,S 0.18-16 K B
C878	87-010-404-080		CAP,ELECT 4.7-50V
C879	87-010-179-080		CAP,CHIP S B1200P
C880	87-010-179-080		CAP,CHIP S B1200P
C881	87-010-179-080		CAP,CHIP S B1200P
C882	87-010-179-080		CAP,CHIP S B1200P
C890	87-010-993-080		C-CAP,S 0.056-25 B
C891	87-010-993-080		C-CAP,S 0.056-25 B
C892	87-010-993-080		C-CAP,S 0.056-25 B
C893	87-010-196-080		CHIP CAPACITOR,0.1-25
C894	87-010-196-080		CHIP CAPACITOR,0.1-25
C899	87-010-196-080		CHIP CAPACITOR,0.1-25
C902	87-010-196-080		CHIP CAPACITOR,0.1-25
C931	87-016-299-080		CAP,E 10-100 SME
C932	87-010-196-080		CHIP CAPACITOR,0.1-25
C933	87-016-299-080		CAP,E 10-100 SME
CN1	87-A60-739-010		CONN,13P JL-BT
CN2	87-A60-739-010		CONN,13P JL-BT
CN91	87-A60-619-010		CONN,2P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-A60-138-010		CONN,13P V FE
CN602	87-A60-131-010		CONN,6P V FE
CN603	87-A60-142-010		CONN,17P V FE
CN605	87-A60-189-010		CONN,16P TUC-P16P-B1
CN606	87-A60-621-010		CONN,4P V 2MM JMT
CN607	87-A60-140-010		CONN,15P V FE
CN608	87-A60-621-010		CONN,4P V 2MM JMT
CNA1	8A-NF8-653-010		CONN ASSY,9P TID-A(480)
CNA3	8A-MTM-647-010		CONN ASSY,2P VH-SUPPLY
CNA401	8A-MTM-646-010		CONN ASSY,10P LOWER-I/O
CNA601	8A-MTM-650-010		CONN ASSY,4P DISP-IN
CNA802	8Z-NFU-631-010		CONN ASSY,2P V DA
FFC602	88-906-701-110		FF-CABLE,6P 1.25 700MM
J202	87-A60-929-010		JACK,DIA6.3 BLK ST W/S TAI
J205	87-A60-751-010		JACK,PIN 2P R/W BLUE
J206	87-A60-878-010		JACK,PIN 3P W/R/O HSP-243V4
J601	87-099-625-010		JACK,PIN 4P,RVS (KM)
J831	87-A61-069-010		JACK,PIN 6P R/W,R/W, O/B MSC
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85K BIAS
R143	87-A00-441-050		RES,270-1/2W J RP
R144	87-A00-441-050		RES,270-1/2W J RP
R145	87-A00-441-050		RES,270-1/2W J RP
R146	87-A00-441-050		RES,270-1/2W J RP
R653	87-010-805-080		C-CAP,S 1-16 ZF
R654	87-010-805-080		C-CAP,S 1-16 ZF
R807	87-022-214-080		C-RES,S 100K-1/10WF
SFR303	87-024-355-080		SFR,33K DIA6 H
SFR304	87-024-355-080		SFR,33K DIA6 H
SFR305	87-024-356-080		SFR,47K DIA6 H
SFR306	87-024-356-080		SFR,47K DIA6 H
SFR351	87-024-356-080		SFR,47K DIA6 H
SFR352	87-024-356-080		SFR,47K DIA6 H
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P

FRONT C.B

C101	87-010-263-040		CAP,E 100-10
C102	87-010-263-040		CAP,E 100-10
C103	87-010-178-080		CHIP CAP,1000P
C104	87-010-178-080		C-CAP,S 1000P-50 CH
C105	87-010-316-080		C-CAP,S 33P-50 CH
C106	87-010-313-080		C-CAP,S 18P-50J CH
C107	87-012-157-080		C-CAP,S 330P-50 CH
C108	87-010-498-040		CAP,E 10-16
C109	87-010-805-080		C-CAP,S 1-16 ZF
C112	87-016-081-080		C-CAP,S 0.1-16 RK
C113	87-A10-189-040		CAP,E 220-10
C114	87-015-785-080		C-CAP,0.1-25 ZF
C115	87-010-198-080		CAP,CHIP 0.022
C116	87-010-400-040		CAP,E 0.47-50
C117	87-010-498-040		CAP,E 10-16
C118	87-A10-189-040		CAP,E 220-10
C119	87-010-196-080		CHIP CAPACITOR,0.1-25
C121	87-012-368-080		C-CAP,S 0.1-50 F
C122	87-010-178-080		CHIP CAP,1000P
C123	87-010-196-080		CHIP CAPACITOR,0.1-25
C124	87-010-196-080		CHIP CAPACITOR,0.1-25
C125	87-010-196-080		CHIP CAPACITOR,0.1-25
C126	87-010-196-080		CHIP CAPACITOR,0.1-25
C127	87-010-196-080		CHIP CAPACITOR,0.1-25
C130	87-010-196-080		CHIP CAPACITOR,0.1-25
C202	87-010-196-080		CHIP CAPACITOR,0.1-25
C203	87-010-406-040		CAP,E 22-50
C221	87-010-421-040		CAP,E 4.7-50 5L
C222	87-010-421-040		CAP,E 4.7-50 5L
C223	87-A10-797-040		CAP,E 47-35 M 5L SRM
C224	87-012-369-080		C-CAP,S 0.047-50F
C251	87-010-244-040		CAP,E 22-16
C252	87-012-365-080		C-CAP,S 0.027-25 KB

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C253	87-010-193-080		C-CAP,S 0.033-25 ZF
C261	87-012-140-080		C-CAP,S 470P-50 J CH
C262	87-012-140-080		C-CAP,S 470P-50 J CH
C263	87-012-140-080		C-CAP,S 470P-50 J CH
C264	87-012-140-080		C-CAP,S 470P-50 J CH
C265	87-012-140-080		C-CAP,S 470P-50 J CH
C266	87-012-140-080		C-CAP,S 470P-50 J CH
C267	87-012-140-080		C-CAP,S 470P-50 J CH
C268	87-012-140-080		C-CAP,S 470P-50 J CH
C269	87-012-140-080		C-CAP,S 470P-50 J CH
C270	87-012-140-080		C-CAP,S 470P-50 J CH
C271	87-012-140-080		C-CAP,S 470P-50 J CH
C272	87-012-140-080		C-CAP,S 470P-50 J CH
C273	87-012-140-080		C-CAP,S 470P-50 J CH
C274	87-012-140-080		C-CAP,S 470P-50 J CH
C275	87-012-140-080		C-CAP,S 470P-50 J CH
C276	87-012-140-080		C-CAP,S 470P-50 J CH
C281	87-016-044-040		CAP,E 100-16 GAS
C381	87-018-209-080		CAP,TC U 0.1-50 ZF
C382	87-012-158-080		C-CAP,S 390P-50 CH
C383	87-010-196-080		CHIP CAPACITOR,0.1-25
C384	87-010-196-080		CHIP CAPACITOR,0.1-25
C385	87-010-196-080		CHIP CAPACITOR,0.1-25
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C387	87-010-196-080		CHIP CAPACITOR,0.1-25
C651	87-010-213-080		C-CAP,S 0.015-50 B
C652	87-010-183-080		C-CAP,S 2700P-50 B
C701	87-010-196-080		CHIP CAPACITOR,0.1-25
C702	87-010-196-080		CHIP CAPACITOR,0.1-25
C703	87-010-071-040		CAP,E 1-50 M 5L SRE
C704	87-010-071-040		CAP,E 1-50 M 5L SRE
C705	87-010-498-040		CAP,E 10-16
C706	87-010-498-040		CAP,E 10-16
C721	87-010-196-080		CHIP CAPACITOR,0.1-25
C722	87-010-196-080		CHIP CAPACITOR,0.1-25
C723	87-010-071-040		CAP,E 1-50 M 5L SRE
C724	87-010-071-040		CAP,E 1-50 M 5L SRE
C725	87-010-498-040		CAP,E 10-16
C726	87-010-498-040		CAP,E 10-16
C727	87-010-263-040		CAP,E 100-10
C728	87-010-196-080		CHIP CAPACITOR,0.1-25
C741	87-010-196-080		CHIP CAPACITOR,0.1-25
C742	87-010-196-080		CHIP CAPACITOR,0.1-25
C743	87-010-071-040		CAP,E 1-50 M 5L SRE
C744	87-010-071-040		CAP,E 1-50 M 5L SRE
C745	87-010-498-040		CAP,E 10-16
C746	87-010-498-040		CAP,E 10-16
CN101	87-A60-142-010		CONN,17P V FE
CN102	87-A60-138-010		CONN,13P V FE
CN201	87-A60-140-010		CONN,15P V FE
CN501	87-A60-586-010		CONN,4P V FE
CN502	87-A60-673-010		CONN,9P H 2MM JMT
CN901	87-099-015-010		CONN,13P V BLK 6216
CNA101	8A-MTM-636-010		CONN ASSY,4P DISP
CNA502	8A-MTM-645-110		CONN ASSY,9P DECK-MECHA
FFC101	88-917-331-110		FF-CABLE,17P 1.25 330MM
FFC102	88-913-301-110		FF-CABLE,13P 1.25
FFC201	88-915-161-110		FF-CABLE,15P 1.25
FFC501	88-904-401-110		FF-CABLE,4P 1.25
FFC901	88-913-301-110		FF-CABLE,13P 1.25
FL201	8A-MTM-605-010		FL,BJ733GK
FL202	8A-MTM-606-010		FL,BJ734GK
L101	87-A50-333-010		COIL,OSC 9.43MHZ
L250	8A-MTM-607-010		COIL,OSC-FL 20KHZ

OPERATE C.B

C181	87-012-157-080		C-CAP,S 330P-50 CH
C183	87-010-197-080		CAP,CHIP 0.01 DM
C184	87-010-182-080		C-CAP,S 2200P-50 B
C185	87-010-197-080		CAP,CHIP 0.01 DM
C186	87-010-182-080		C-CAP,S 2200P-50 B
C401	87-010-196-080		CHIP CAPACITOR,0.1-25
C402	87-010-196-080		CHIP CAPACITOR,0.1-25
C403	87-010-319-080		C-CAP,S 56P-50 CH
C404	87-010-319-080		C-CAP,S 56P-50 CH
C405	87-010-319-080		C-CAP,S 56P-50 CH
C406	87-010-322-080		C-CAP,S 100P-50 CH
C407	87-010-322-080		C-CAP,S 100P-50 CH
C408	87-010-322-080		C-CAP,S 100P-50 CH
C409	87-A11-733-080		C-CAP,S 1-16 ZF
C601	87-010-186-080		CAP,CHIP 4700P
C602	87-010-498-040		CAP,E 10-16
C603	87-010-320-080		CHIP CAP,68P
C604	87-010-492-040		CAP,E 0.33-50 GAS
C606	87-016-044-040		CAP,E 100-16 GAS
C607	87-010-196-080		CHIP CAPACITOR,0.1-25
C608	87-010-178-080		CHIP CAP,1000P
C609	87-010-178-080		CHIP CAP,1000P
CN202	87-A60-163-010		CONN,15P H FE
CN402	87-099-564-010		CONN,4P TUC-P4P-B1
CN403	87-099-564-010		CONN,4P TUC-P4P-B1
CN404	87-099-564-010		CONN,4P TUC-P4P-B1
CN405	87-099-564-010		CONN,4P TUC-P4P-B1
CNA301	88-802-021-620		CONN ASSY,2P
CNA601	88-805-031-090		CONN ASSY,3P
CNA602	8A-MTM-655-010		CONN ASSY,4P H DS-M1
LED293	87-A40-317-080		LED,SLR-342VCT31 RED
LED401	87-A40-317-080		LED,SLR-342VCT31 RED
LED402	87-A40-317-080		LED,SLR-342VCT31 RED
LED403	87-A40-317-080		LED,SLR-342VCT31 RED
LED404	87-A40-317-080		LED,SLR-342VCT31 RED
LED405	87-A40-317-080		LED,SLR-342VCT31 RED
LED416	87-A40-496-040		LED,SLR-342PCT31 GRN
LED417	87-A40-496-040		LED,SLR-342PCT31 GRN
LED418	87-A40-496-040		LED,SLR-342PCT31 GRN
LED419	87-A40-496-040		LED,SLR-342PCT31 GRN
LED420	87-A40-496-040		LED,SLR-342PCT31 GRN
LED421	87-A40-496-040		LED,SLR-342PCT31 GRN
S101	87-A91-589-010		SW,RTRY RE0121PVJOG
S102	87-A91-590-010		SW,RTRY RE0121PVVOL
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
S332	87-A90-095-080		SW,TACT EVQ11G04M
S333	87-A90-095-080		SW,TACT EVQ11G04M
S334	87-A90-095-080		SW,TACT EVQ11G04M
S341	87-A90-095-080		SW,TACT EVQ11G04M
S342	87-A90-095-080		SW,TACT EVQ11G04M
S343	87-A90-095-080		SW,TACT EVQ11G04M
S344	87-A90-095-080		SW,TACT EVQ11G04M

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
S345	87-A90-095-080		SW,TACT EVQ11G04M
S346	87-A90-095-080		SW,TACT EVQ11G04M
S347	87-A90-095-080		SW,TACT EVQ11G04M
S348	87-A90-095-080		SW,TACT EVQ11G04M
S349	87-A90-095-080		SW,TACT EVQ11G04M
S350	87-A90-095-080		SW,TACT EVQ11G04M
S351	87-A90-095-080		SW,TACT EVQ11G04M
S356	87-A90-095-080		SW,TACT EVQ11G04M

KEY C.B

CNA302	87-A60-619-010		CONN,2P V 2MM JMT
S352	87-A90-095-080		SW,TACT EVQ11G04M
S353	87-A90-095-080		SW,TACT EVQ11G04M
S354	87-A90-095-080		SW,TACT EVQ11G04M
S355	87-A90-095-080		SW,TACT EVQ11G04M

LOW AMP C.B

C26	87-010-197-080		CAP,CHIP 0.01 DM
C27	87-012-140-080		CAP,470P
C28	87-010-263-080		CAP,ELECT 100-10V
C29	87-010-247-080		CAP,ELECT 100-50V
C101	87-016-299-080		CAP,E 10-100 SME
C102	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-016-299-080		CAP,E 10-100 SME
C125	87-012-368-080		C-CAP,S 0.1-50 F
C126	87-012-368-080		C-CAP,S 0.1-50 F
C127	87-012-368-080		C-CAP,S 0.1-50 F
C128	87-012-368-080		C-CAP,S 0.1-50 F
C129	87-010-191-080		C-CAP,S 0.015-50 F
C130	87-010-191-080		C-CAP,S 0.015-50 F
C131	87-010-196-080		CHIP CAPACITOR,0.1-25
C132	87-010-196-080		CHIP CAPACITOR,0.1-25
C134	87-012-368-080		C-CAP,S 0.1-50 ZF
C199	87-018-209-080		CAP,TC U 0.1-50 ZF
C203	87-010-260-080		CAP,ELECT 47-25V
C204	87-010-260-080		CAP,ELECT 47-25V
C207	87-010-260-080		CAP,ELECT 47-25V
C208	87-010-260-080		CAP,ELECT 47-25V
C209	87-010-322-080		C-CAP,S 100P-50 CH
C210	87-010-322-080		C-CAP,S 100P-50 CH
C211	87-010-260-080		CAP,ELECT 47-25V
C212	87-010-260-080		CAP,ELECT 47-25V
C213	87-A10-812-080		C-CAP,S 220P-200 J CH
C214	87-A10-812-080		C-CAP,S 220P-200 J CH
C215	87-010-322-080		C-CAP,S 100P-50 CH
C216	87-010-322-080		C-CAP,S 100P-50 CH
C221	87-010-197-080		CAP,CHIP 0.01 DM
C222	87-010-197-080		CAP,CHIP 0.01 DM
C251	87-010-235-080		CAP,E 470-16 SME
C297	87-010-186-080		C-CAP,S 4700P-50 KB
C299	87-010-197-080		CAP,CHIP 0.01 DM
CN102	87-099-410-010		CONN,10P V WHT EH
CNA101	8A-MTM-638-010		CONN ASSY,7P LOW SUPPLY
J201	87-A61-167-010		TERMINAL,SP 4P LTS0420-1002
L101	87-003-383-010		COIL,1UH-S
L102	87-003-383-010		COIL,1UH-S
R227	87-A00-669-080		RES,M/F 0.22-2WJ RA
R228	87-A00-669-080		RES,M/F 0.22-2WJ RA
R230	87-A00-669-080		RES,M/F 0.22-2WJ RA
R239	87-A00-669-080		RES,M/F 0.22-2WJ RA
R240	87-A00-669-080		RES,M/F 0.22-2WJ RA
R241	87-A00-669-080		RES,M/F 0.22-2WJ RA
R253	87-A00-669-080		RES,M/F 0.22-2WJ RA
R254	87-A00-669-080		RES,M/F 0.22-2WJ RA
TH201	87-A91-042-080		C-THMS,100K 55001
TH202	87-A91-042-080		C-THMS,100K 55001

5CH AMP C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C403	87-010-405-080		CAP,ELECT 10-50V
C404	87-010-405-080		CAP,ELECT 10-50V
C405	87-010-186-080		CAP,CHIP 4700P
C406	87-010-186-080		CAP,CHIP 4700P
C407	87-010-405-080		CAP,ELECT 10-50V
C408	87-010-405-080		CAP,ELECT 10-50V
C409	87-010-322-080		C-CAP,S 100P-50 CH
C410	87-010-322-080		C-CAP,S 100P-50 CH
C411	87-010-260-080		CAP,ELECT 47-25V
C412	87-010-260-080		CAP,ELECT 47-25V
C413	87-A10-516-080		C-CAP,S 100P-200 J CH
C414	87-A10-516-080		C-CAP,S 100P-200 J CH
C421	87-010-182-080		C-CAP,S 2200P-50 KB
C422	87-010-182-080		C-CAP,S 2200P-50 KB
C423	87-012-368-080		C-CAP,S 0.1-50 ZF
C424	87-012-368-080		C-CAP,S 0.1-50 ZF
C425	87-012-368-080		C-CAP,S 0.1-50 ZF
C426	87-012-368-080		C-CAP,S 0.1-50 ZF
C451	87-010-235-080		CAP,E 470-16 SME
C497	87-010-186-080		C-CAP,S 4700P-50 KB
C499	87-010-182-080		C-CAP,S 2200P-50 KB
C603	87-010-405-080		CAP,ELECT 10-50V
C605	87-010-186-080		CAP,CHIP 4700P
C607	87-010-405-080		CAP,ELECT 10-50V
C609	87-010-322-080		C-CAP,S 100P-50 CH
C611	87-A10-516-080		C-CAP,S 100P-200 J CH
C613	87-010-260-080		CAP,ELECT 47-25V
C615	87-010-189-080		C-CAP,S 8200P-50 KB
C621	87-010-182-080		C-CAP,S 2200P-50 KB
C623	87-012-368-080		C-CAP,S 0.1-50 ZF
C625	87-012-368-080		C-CAP,S 0.1-50 ZF
C703	87-010-405-080		CAP,ELECT 10-50V
C704	87-010-405-080		CAP,ELECT 10-50V
C705	87-010-186-080		CAP,CHIP 4700P
C706	87-010-186-080		CAP,CHIP 4700P
C707	87-010-405-080		CAP,ELECT 10-50V
C708	87-010-405-080		CAP,ELECT 10-50V
C709	87-010-322-080		C-CAP,S 100P-50 CH
C710	87-010-322-080		C-CAP,S 100P-50 CH
C711	87-A10-516-080		C-CAP,S 100P-200 J CH
C712	87-A10-516-080		C-CAP,S 100P-200 J CH
C713	87-010-260-080		CAP,ELECT 47-25V
C714	87-010-260-080		CAP,ELECT 47-25V
C715	87-010-187-080		C-CAP,S 5600P-50 KB
C716	87-010-187-080		C-CAP,S 5600P-50 KB
C720	87-010-182-080		C-CAP,S 2200P-50 KB
C721	87-010-182-080		C-CAP,S 2200P-50 KB
C723	87-012-368-080		C-CAP,S 0.1-50 ZF
C724	87-012-368-080		C-CAP,S 0.1-50 ZF
C725	87-012-368-080		C-CAP,S 0.1-50 ZF
C726	87-012-368-080		C-CAP,S 0.1-50 ZF
CN201	87-A60-727-010		CONN,13P JL-R
CN202	87-A60-727-010		CONN,13P JL-R
L601	87-003-383-010		COIL,1UH K
L701	87-003-383-010		COIL,1UH K
L702	87-003-383-010		COIL,1UH K
R427	87-A00-262-080		RES,M/F 0.15-2W J
R428	87-A00-262-080		RES,M/F 0.15-2W J
R439	87-A00-262-080		RES,M/F 0.15-2W J
R440	87-A00-262-080		RES,M/F 0.15-2W J
R627	87-A00-262-080		RES,M/F 0.15-2W J
R641	87-A00-262-080		RES,M/F 0.15-2W J
R727	87-A00-262-080		RES,M/F 0.15-2W J
R728	87-A00-262-080		RES,M/F 0.15-2W J
R739	87-A00-262-080		RES,M/F 0.15-2W J
R740	87-A00-262-080		RES,M/F 0.15-2W J
TH401	87-A91-042-080		C-THMS,100K 55001
TH402	87-A91-042-080		C-THMS,100K 55001
TH601	87-A91-042-080		C-THMS,100K 55001
TH701	87-A91-042-080		C-THMS,100K 55001

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
TH702	87-A91-042-080		C-THMS,100K 55001
VIDEO I/O C.B			
C901	87-010-406-040		CAP,ELECT 22-50
C902	87-010-406-040		CAP,ELECT 22-50
C903	87-010-406-080		CAP,ELECT 22-50
C904	87-010-406-080		CAP,ELECT 22-50
C905	87-010-406-080		CAP,ELECT 22-50
C906	87-010-260-080		CAP,ELECT 47-25V
C907	87-010-196-080		CHIP CAPACITOR,0.1-25
C908	87-010-387-080		CAP,E 470-25 SME
C909	87-010-371-040		CAP,ELECT 470-6.3V
C910	87-010-371-080		CAP,ELECT 470-6.3V
C911	87-010-371-040		CAP,ELECT 470-6.3V
C912	87-010-196-080		CHIP CAPACITOR,0.1-25
C913	87-010-196-080		CHIP CAPACITOR,0.1-25
C916	87-010-196-080		CHIP CAPACITOR,0.1-25
C917	87-010-196-080		CHIP CAPACITOR,0.1-25
C918	87-010-196-080		CHIP CAPACITOR,0.1-25
C919	87-010-318-080		C-CAP,S 47P-50 J CH
C920	87-010-196-080		CHIP CAPACITOR,0.1-25
CN904	87-A60-140-010		CONN,15P V FE
CN905	87-A60-595-010		CONN,17P TUC-P17P-B1
CN907	87-A60-139-010		CONN,14P V FE
CNA901	87-A60-130-010		CONN,5P V FE
FFC901	88-905-281-110		FF-CABLE,5P 1.25 280MM
FFC904	88-915-751-110		FF-CABLE,15P 1.25 750MM
FFC907	88-914-121-110		FF-CABLE,14P 1.25 750MM
L901	87-003-152-080		COIL,100UH
R905	87-010-317-080		C-CAP,S 39P-50 CH<K>
VIDEO JACK C.B			
C914	87-010-196-080		CHIP CAPACITOR,0.1-25
C915	87-010-196-080		CHIP CAPACITOR,0.1-25
CN906	87-A60-594-010		CONN,17P TUC-P17X-B1
J903	87-A61-236-010		JACK,PIN 3P Y/R/W
VIDEO-3 C.B			
C951	87-010-196-080		CHIP CAPACITOR,0.1-25
C952	87-010-196-080		CHIP CAPACITOR,0.1-25
C953	87-010-188-080		CAP,CHIP 6800P
C954	87-010-188-080		CAP,CHIP 6800P
CN901	87-A60-130-010		CONN,5P V FE
FB951	83-XM1-617-080		C-COIL,BK2125HM601
FFC655	88-905-201-110		FF-CABLE,5P 1.25
J951	87-A61-180-010		JACK,PIN 3P Y/W/R W/O SW G
CONNECT C.B			
CN651	87-A60-131-010		CONN,6P V FE
CN652	87-A60-131-010		CONN,6P V FE
CN653	87-A60-138-010		CONN,13P V FE
CN654	87-A60-138-010		CONN,13P V FE
CN655	87-A60-130-010		CONN,5P V FE
CN656	87-A60-130-010		CONN,5P V FE
FFC651	88-906-231-110		FF-CABLE,6P 1.25 230MM
FFC654	88-913-221-110		FF-CABLE,13P 1.25 220MM
TUNER C.B			
C701	87-010-381-080		CAP,ELECT 330-16V
C702	87-010-404-080		CAP,ELECT 4.7-50V
C703	87-012-286-080		CAP,U 0.01-25
C704	87-012-286-080		CAP,U 0.01-25
C709	87-012-195-080		C-CAP,U 100P-50CH
C711	87-010-260-080		CAP,ELECT 47-25V
C712	87-010-831-080		C-CAP,U,0.1-16F
C713	87-012-286-080		CAP,U 0.01-25
C714	87-012-286-080		CAP,U 0.01-25
C715	87-012-195-080		C-CAP,U 100P-50CH
C717	87-012-286-080		CAP,U 0.01-25
C719	87-012-286-080		CAP,U 0.01-25
C720	87-012-195-080		C-CAP,U 100P-50CH
C721	87-012-176-080		CAP,15P
C722	87-012-176-080		CAP,15P
C723	87-012-274-080		CHIP CAP,U 1000P-50B
C725	87-018-131-080		CAP,TC U 1000P-50 KB
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP,ELECT 220-10V
C729	87-012-274-080		CHIP CAP,U 1000P-50B
C731	87-012-286-080		CAP,U 0.01-25
C733	87-012-280-080		C-CAP,U 3300P-50 KB
C734	87-012-280-080		C-CAP,U 3300P-50 KB
C752	87-012-282-080		C-CAP,U 4700P-50 KB
C753	87-012-195-080		C-CAP,U 100P-50 J CH
C755	87-012-286-080		CAP,U 0.01-25
C756	87-012-286-080		CAP,U 0.01-25
C757	87-012-188-080		C-CAP,U 47P-50 CH
C758	87-012-167-080		C-CAP,U 5P-50 CH
C761	87-010-196-080		C-CAP,S 0.1-25 ZF
C762	87-012-286-080		CAP,U 0.01-25
C763	87-010-829-080		CAP,U 0.047-16
C765	87-012-286-080		CAP,U 0.01-25
C766	87-010-197-080		C-CAP,S 0.01-25 KB
C768	87-012-286-080		CAP,U 0.01-25
C769	87-010-260-080		CAP,ELECT 47-25V
C770	87-010-829-080		CAP,U 0.047-16
C771	87-010-383-080		CAP,ELECT 33-25V
C772	87-010-829-080		CAP,U 0.047-16
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP,ELECT 100-10V
C775	87-010-404-080		CAP,ELECT 4.7-50V
C776	87-012-286-080		CAP,U 0.01-25
C777	87-010-493-080		CAP,E 0.47-50 M 5L SRE
C778	87-010-401-080		CAP,ELECT 1-50V
C779	87-010-401-080		CAP,ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP,ELECT 10-50V
C782	87-010-405-080		CAP,ELECT 10-50V
C783	87-012-286-080		CAP,U 0.01-25
C784	87-012-286-080		CAP,U 0.01-25
C785	87-010-402-080		CAP,ELECT 2.2-50V
C786	87-010-402-080		CAP,ELECT 2.2-50V
C787	87-012-275-080		C-CAP,U 1200P-50 B
C788	87-012-275-080		C-CAP,U 1200P-50 B
C789	87-012-275-080		C-CAP,U 1200P-50 B
C790	87-012-275-080		C-CAP,U 1200P-50 B
C791	87-010-405-080		CAP,ELECT 10-50V
C793	87-012-273-080		C-CAP,U 820P-50 B
C794	87-010-406-080		CAP,ELECT 22-50
C795	87-010-596-080		CAP,S 0.047-16
C796	87-010-403-080		CAP,ELECT 3.3-50V
C797	87-012-276-080		C-CAP,U 1500P-50 KB
C798	87-012-276-080		C-CAP,U 1500P-50 KB
C799	87-010-829-080		CAP,U 0.047-16
C812	87-012-286-080		CAP,U 0.01-25
C814	87-012-286-080		CAP,U 0.01-25
C820	87-010-260-080		CAP,ELECT 47-25V
C821	87-012-286-080		CAP,U 0.01-25
C822	87-012-286-080		CAP,U 0.01-25
C823	87-012-286-080		CAP,U 0.01-25
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-012-286-080		C-CAP,U 0.01-25 KB
C861	87-012-199-080		C-CAP,U 220P-50 J CH
C862	87-012-199-080		C-CAP,U 220P-50 J CH
C863	87-012-270-080		C-CAP,U 470P-50 KB

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C864	87-010-405-080		CAP,E 10-50 M 11L SME
C865	87-010-196-080		C-CAP,S 0.1-25 ZF
C866	87-010-405-080		CAP,E 10-50 M 11L SME
C867	87-012-286-080		C-CAP,U 0.01-25 KB
C868	87-012-184-080		C-CAP,U 33P-50 J CH
C869	87-012-180-080		C-CAP,U 22P-50 J CH
C940	87-012-286-080		C-CAP,U 0.01-25 KB
C942	87-012-168-080		C-CAP,U 6P-50 D CH
C947	87-012-286-080		C-CAP,U 0.01-25 KB
C949	87-A10-039-080		C-CAP,U 470P-50 J CH
C952	87-012-286-080		C-CAP,U 0.01-25 KB
C958	87-010-197-080		C-CAP,S 0.01-25 KB
C959	87-010-831-080		C-CAP,U 0.1-16 ZF
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50 M 11L SME
CF801	87-008-423-010		FLTR,CF SFE10.7MS3G-A
CF802	82-785-747-010		CF,MS2 GHY R
CN701	87-A60-650-010		CONN,16P H GRY TUC-P16X-C1
FFE801	A8-6ZA-191-130		6ZA-1 FEENM
J801	87-033-241-010		TERMINAL,ANT 2P AJ-2039
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A91-110-010		FLTR,PCFJZH-450(TOK)
L781	87-005-847-080		COIL,2.2UH CECS
L791	87-A50-027-010		COIL,1 POLE MPX(TOK)
L792	87-A50-027-010		COIL,1 POLE MPX(TOK)
L832	87-005-847-080		COIL,2.2UH K CECS
L851	87-005-847-080		COIL,2.2UH K CECS
L941	87-A50-020-010		COIL,ANT LW(COI)252KHZ
L942	87-A50-019-010		COIL,OSC LW(COI) 856KHZ
L981	8Z-ZA1-665-010		COIL,AM PACK 2(TOK)
TC942	87-011-164-010		TRIMMER,CER 30P 4.5X3.9 VCT31
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X851	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309

PT C.B

C1	87-010-388-090		CAP,E 1000-25 M SME
C2	87-A11-148-080		CAP,TC U 0.1-50F
C3	87-A11-148-080		CAP,TC U 0.1-50F
C4	87-A11-148-080		CAP,TC U 0.1-50F
C5	87-A11-148-080		CAP,TC U 0.1-50F
C7	87-A10-479-080		CAP,CER 2200P-250 M E KH
C8	87-A12-056-090		CAP,E 4700-35
C9	87-A12-056-090		CAP,E 4700-35
C10	87-A10-416-090		CAP,E 6800-80 SMG VB
C11	87-A10-416-090		CAP,E 6800-80 SMG VB
C12	87-A11-148-080		CAP,TC U 0.1-50F
C13	87-A11-148-080		CAP,TC U 0.1-50F
C14	87-A11-148-080		CAP,TC U 0.1-50F
C15	87-A11-148-080		CAP,TC U 0.1-50F
C16	87-A10-416-090		CAP,E 6800-80 SMG VB
C17	87-A10-416-090		CAP,E 6800-80 SMG VB
C18	87-018-214-080		CAP,TC U 0.1-50F
C19	87-018-214-080		CAP,TC U 0.1-50F
C20	87-010-403-080		CAP,ELECT 3.3-50V
C21	87-A11-148-080		CAP,TC U 0.1-50F
C22	87-A11-148-080		CAP,TC U 0.1-50F
CN1	87-A61-110-010		CONN,9P V TID-A
CN2	87-A60-850-010		CONN,7P V VH
CN5	87-099-674-010		CONN,2P V VA
CN6	87-A60-937-010		CONN,2P V VH
⚠ PR1	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR2	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR3	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR4	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR5	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR6	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR7	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR8	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR9	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PR10	87-026-682-080		PROTECTOR,10A 491 SERIES 60V
⚠ PT1	8A-MTM-612-010		PT,AMT-M EZ
⚠ PT2	8Z-NF8-662-010		PT,SUB ZNF-8(E)
⚠ RY1	87-A91-418-010		RELAY,AC12V G5PA-1-M

SCART C.B

C900	87-018-131-080		CAP,TC U 1000P-50
C901	87-010-178-080		C-CAP,S 1000P-50
C902	87-010-178-080		C-CAP,S 1000P-50
CN908	87-A60-162-010		CONN,14P V FE
J961	87-JB1-615-010		CONN,21P V SCART
J962	87-JB1-615-010		CONN,21P V SCART
R966	87-010-178-080		C-CAP,S 1000P-50

MIC C.B

C605	87-010-196-080		CHIP CAPACITOR,0.1-25
CN601	87-A60-620-010		CONN,3P V 2MM JMT
J601	87-099-659-010		JACK,6.3 JY-6314-01130
J602	87-099-659-010		JACK,6.3 JY-6314-01130

LED-A C.B

CN451	87-A60-688-010		CONN,4P H GRY TUC-P04X-C1
LED451	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB

LED-B C.B

CN452	87-A60-688-010		CONN,4P H GRY TUC-P04X-C1
LED453	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB

LED-C C.B

CN453	87-A60-688-010		CONN,4P H GRY TUC-P04X-C1
LED452	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB

LED-D C.B

CN454	87-A60-688-010		CONN,4P H GRY TUC-P04X-C1
LED454	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB

DECK C.B

CON1	87-009-352-010		CONN,9P H WHT PH
SFR1	87-024-581-010		SFR,3.3K H KVSF637A
SOL1	82-ZM1-634-010		SOL ASSY,23K
SW2	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW4	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW5	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW6	87-A90-248-010		SW,MICRO ESE11SH2CXQ
W1	86-ZM1-602-110		RBN-CORD,4P 220MM

DECK MOTOR C.B

CON1	87-A60-318-010		CONN,4P H 6216-11
M1	87-A90-346-010		MOT,RF-500TB/2560
SW1	87-036-110-010		SW,MICRO SPPB62

HEAD C.B

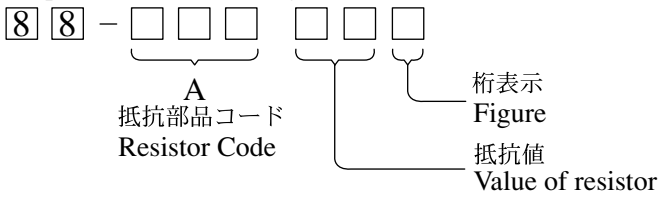
CON101	86-ZM1-605-010		CONN ASSY,AR3

FAN C.B

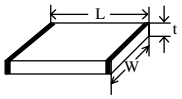
C91	87-010-401-080		CAP,E 1-50 M
C92	87-010-401-080		CAP,E 1-50 M
C93	87-010-260-080		CAP,E 47-25 M
CN93	87-A60-619-010		CONN,2P V 2MM JMT

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

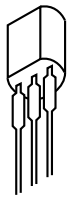
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

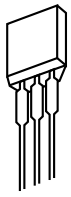
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード　：A Resistor Code：A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



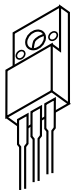
E C B

2SA952
CC5551
CSA1585
CSC4115
CSD655
KTA1266
KTC3198



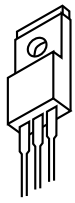
E C B

DTC114ES
KTC3199



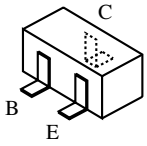
B C E

2SB1588
2SD2439
FN1016
FP1016

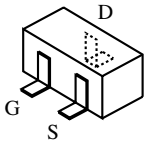


B C E

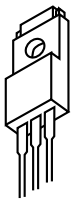
2SB1370



2SA1235
2SC2714
2SC3052
2SC3326
CMBT5401
CMBT5551
DTA123EKA
DTA123JK
KTA1298
RT1N141C
RT1P141C
RT1P144C
RT1P441C

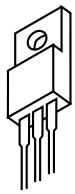


2SK2158
2SJ561-T1



G D S

2SK2937

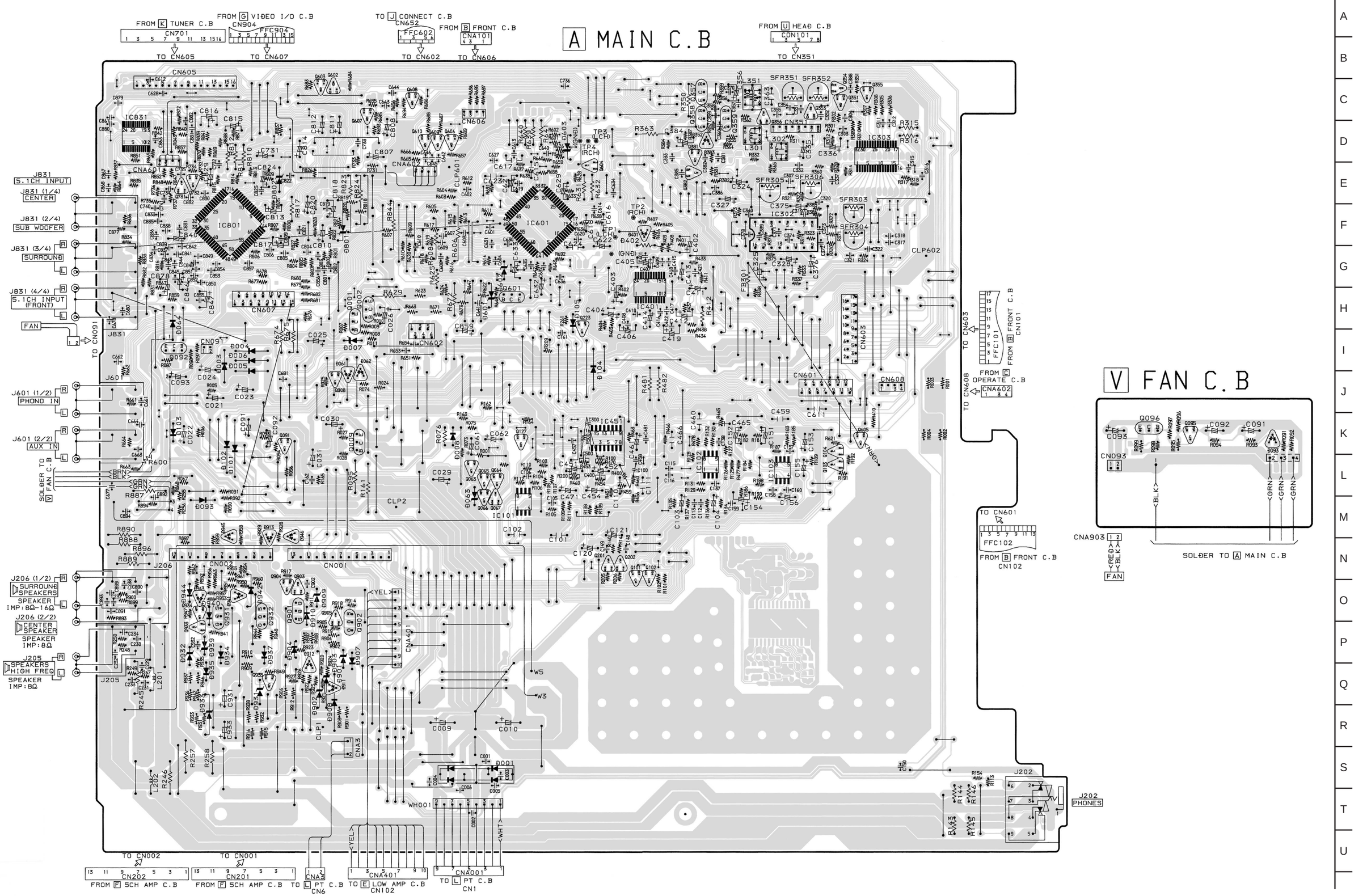


G D S

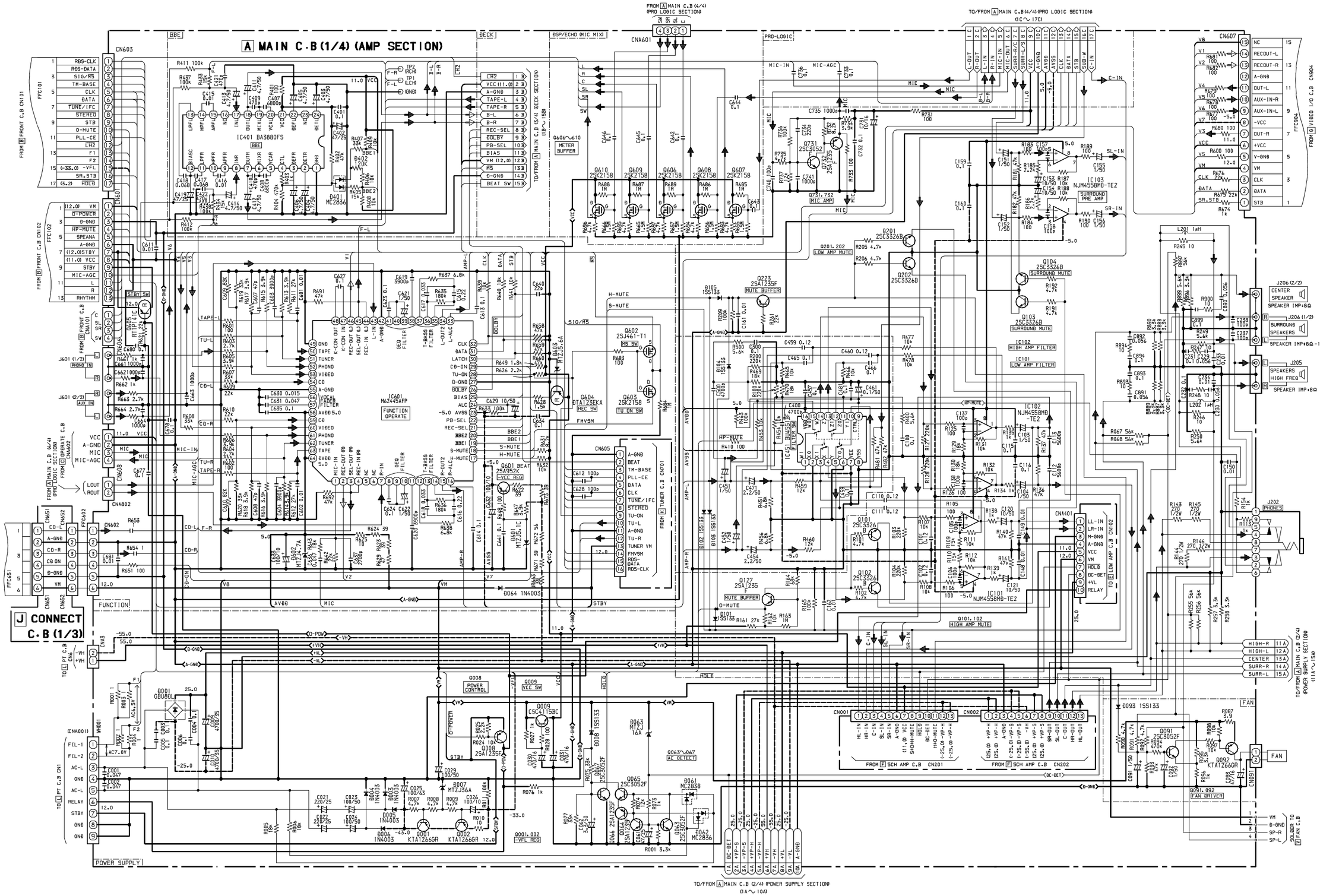
2SK3053

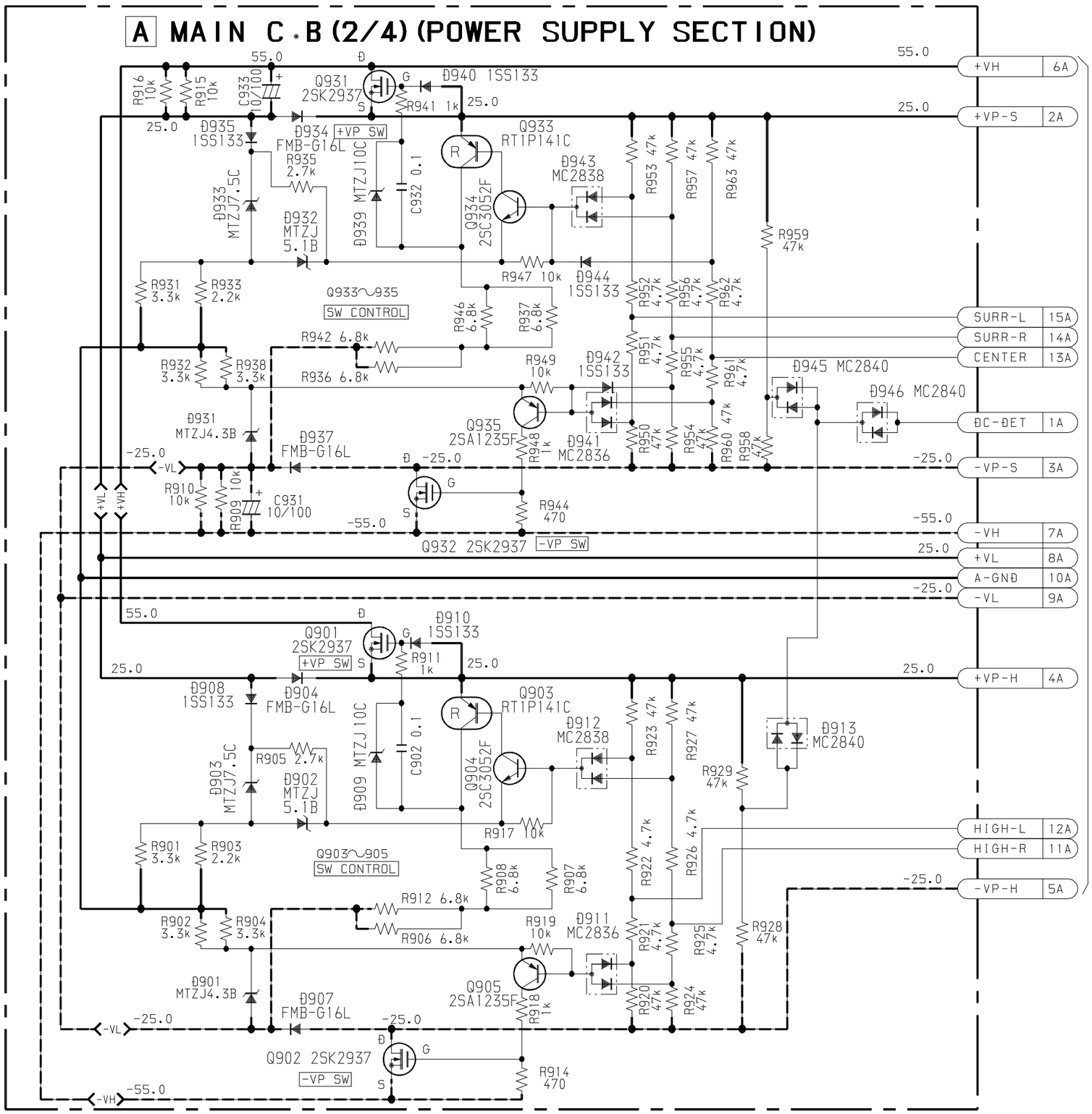
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

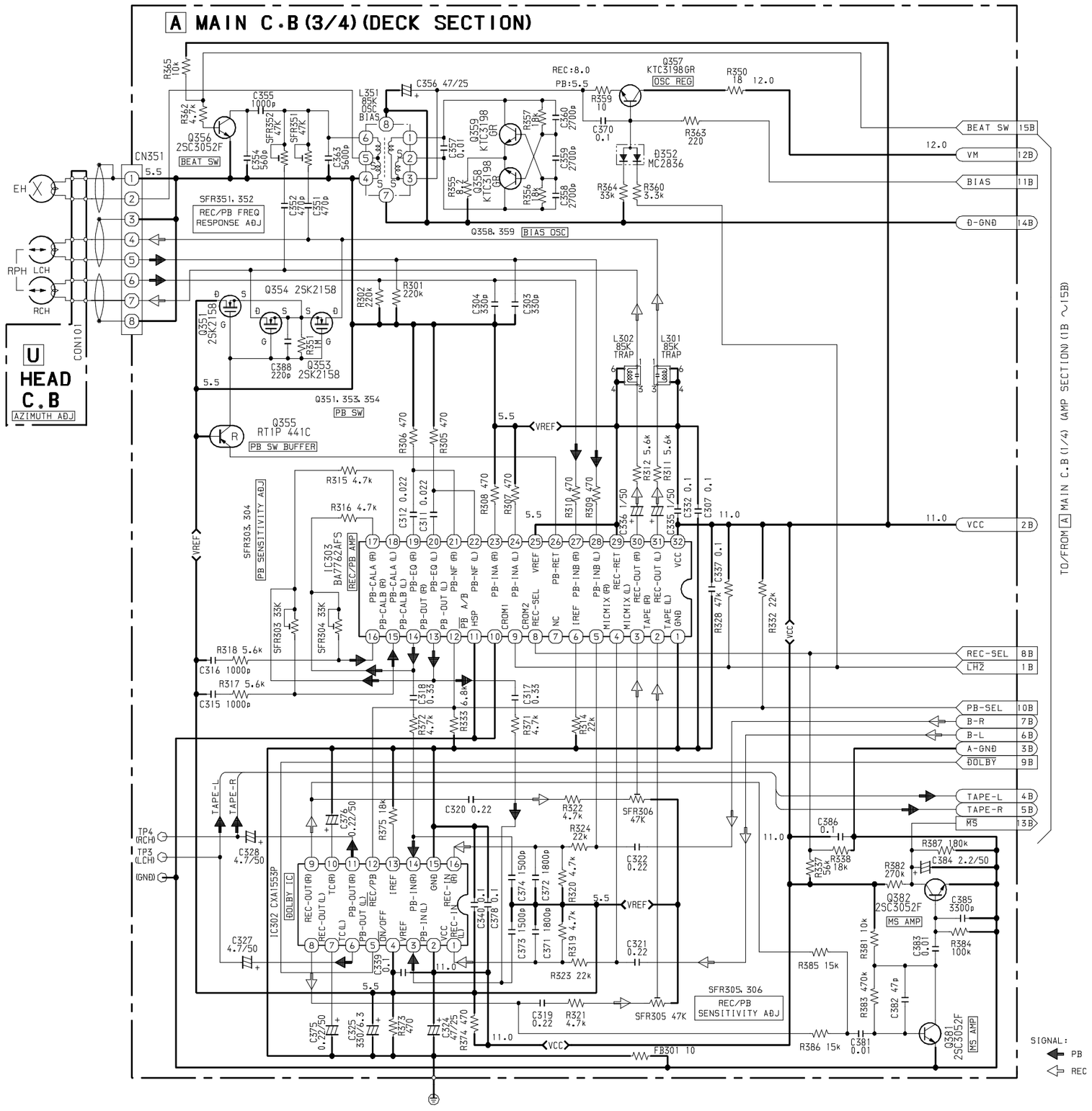
A B C D E F G H I J K L M N O P Q R S T U

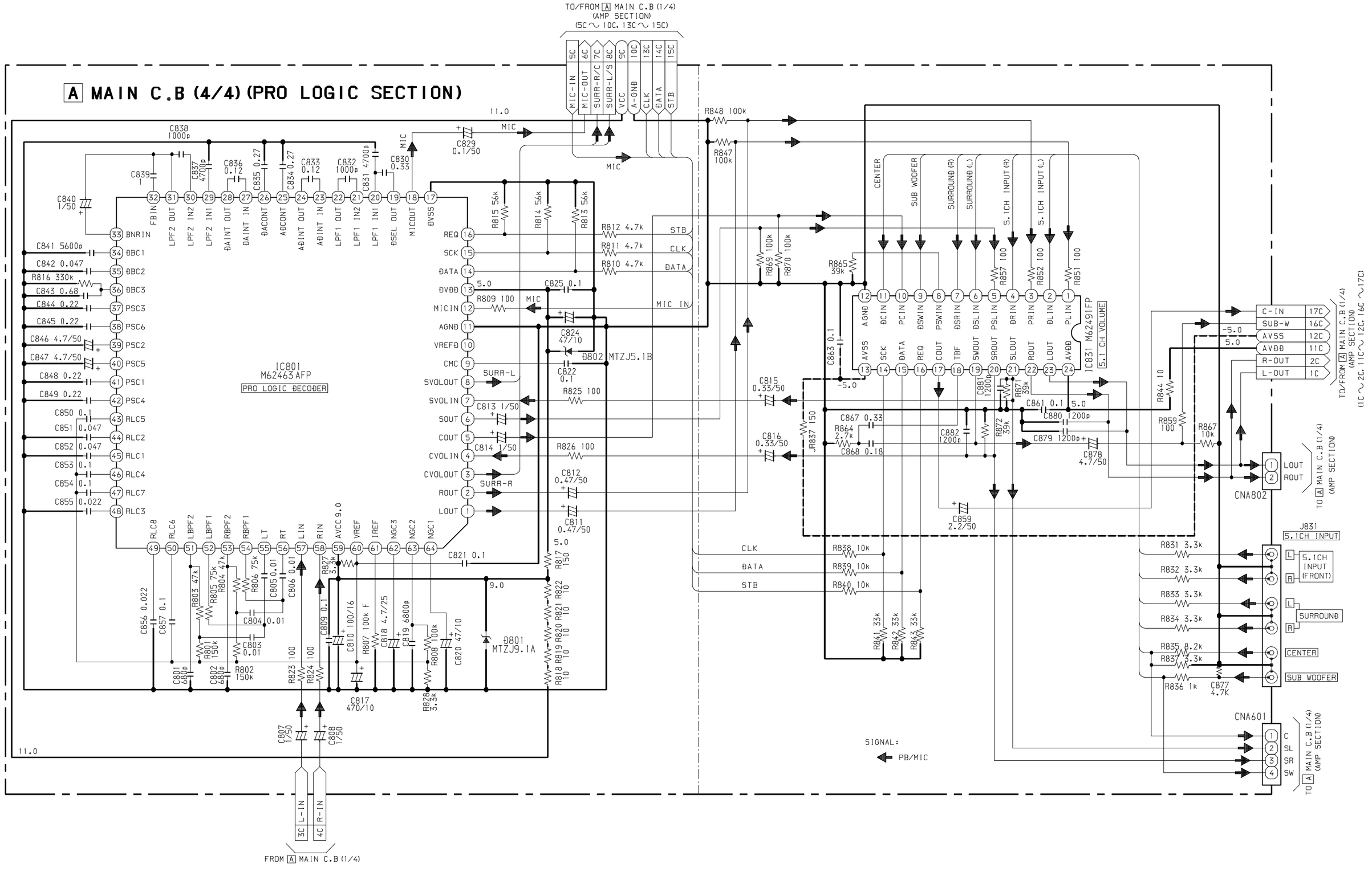


SCHEMATIC DIAGRAM – 1 (MAIN (1 / 4 : AMP SECTION) / CONNECT (1 / 3))

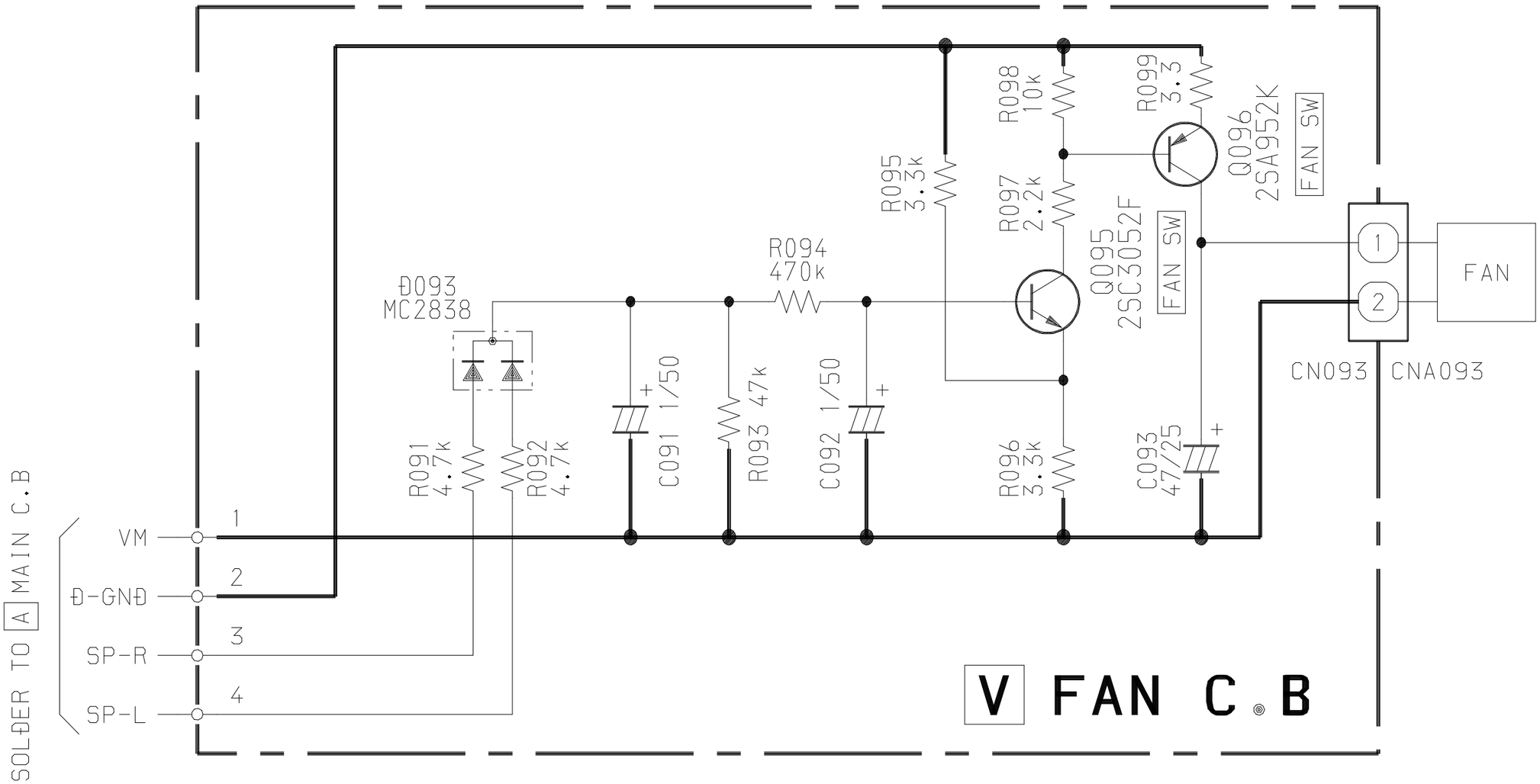



A MAIN C.B (2/4) (POWER SUPPLY SECTION)
Q931 2SK2937
Đ940 1SS133
R941 1k
Đ934 +VP SW
FMB-G16L
Q933 RT1P141C
Đ935 1SS133
Đ933 MTZJ7.5C
R935 2.7k
Đ932 MTZJ 5.1B
Đ939 MTZJ10C
C932 0.1
Q934 2SC3052F
Đ943 MC2838
R953 47k
R957 47k
R963 47k
R959 47k
R947 10k
Đ944 1SS133
R931 3.3k
R933 2.2k
Q933~935 SW CONTROL
R946 6.8k
R937 6.8k
R952 4.7k
R956 4.7k
R962 4.7k
R942 6.8k
R936 6.8k
R932 3.3k
R938 3.3k
R949 10k
Đ942 1SS133
R951 4.7k
R955 4.7k
R961 4.7k
Đ945 MC2840
Đ946 MC2840
Đ931 MTZJ4.3B
Đ937 FMB-G16L
Q935 2SA1235F
R948 1k
Đ941 MC2836
R950 47k
R954 47k
R960 47k
R958 47k
R910 10k
R909 10k
C931 10/100
R944 470
Q932 2SK2937 -VP SW
Q901 2SK2937 +VP SW
Đ910 1SS133
R911 1k
Đ908 1SS133
Đ904 FMB-G16L
Q903 RT1P141C
Đ912 MC2838
Đ913 MC2840
R923 47k
R927 47k
R929 47k
Đ909 MTZJ10C
C902 0.1
Q904 2SC3052F
R905 2.7k
Đ903 MTZJ7.5C
Đ902 MTZJ 5.1B
R917 10k
R901 3.3k
R903 2.2k
Q903~905 SW CONTROL
R908 6.8k
R907 6.8k
R922 4.7k
R926 4.7k
R912 6.8k
R906 6.8k
R902 3.3k
R904 3.3k
R919 10k
Đ911 MC2836
R921 4.7k
R925 4.7k
R928 47k
Đ901 MTZJ4.3B
Đ907 FMB-G16L
Q905 2SA1235F
R918 1k
R920 47k
R924 47k
Q902 2SK2937 -VP SW
R914 470
+VH 6A
+VP-S 2A
SURR-L 15A
SURR-R 14A
CENTER 13A
ĐC-ĐET 1A
-VP-S 3A
-VH 7A
+VL 8A
A-GNĐ 10A
-VL 9A
+VP-H 4A
HIGH-L 12A
HIGH-R 11A
-VP-H 5A
TO/FROM A MAIN C.B (1/4) (AMP SECTION) (1A~15A)


A MAIN C.B (3/4) (DECK SECTION)
U HEAD C.B
AZIMUTH ADJ
CN101
CN351
BEAT SW
SFR351, 352
REC/PB FREQ RESPONSE ADJ
Q358, 359 BIAS OSC
Q354 2SK2158
Q351, 353, 354
PB SW
Q355 RT1P 441C
PB SW BUFFER
SFR303, 304
PB SENSITIVITY ADJ
IC303 BA7762AFS
REC/PB AMP
IC302 CXA1553P
DOLBY IC
SFR306 47K
SFR303 33K
SFR304 33K
SFR305, 306
REC/PB SENSITIVITY ADJ
SFR305 47K
Q357 KTC3198GR
OSC REG
Q359 KTC3198 GR
Q358 KTC3198 BL
D352 MC2836
L351 85K OSC BIAS
L302 85K TRAP
L301 85K TRAP
Q382 2SC3052F
MS AMP
Q381 2SC3052F
MS AMP
REC:8.0
PB:5.5
VREF
VCC
BEAT SW 15B
VM 12B
BIAS 11B
Ð-GNÐ 14B
REC-SEL 8B
CH2 1B
PB-SEL 10B
B-R 7B
B-L 6B
A-GNÐ 3B
ÐOLBY 9B
TAPE-L 4B
TAPE-R 5B
MS 13B
TO/FROM A MAIN C.B (1/4) (AMP SECTION) (1B ~15B)
SIGNAL:
PB
REC


A MAIN C.B (4/4) (PRO LOGIC SECTION)
TO/FROM A MAIN C.B (1/4) (AMP SECTION) (5C ~ 10C, 13C ~ 15C)
MIC-IN
MIC-OUT
SURR-R/C
SURR-L/S
VCC
A-GND
CLK
DATA
STB
IC801 M62463AFP PRO LOGIC DECODER
IC831 M62491FP 5.1 CH VOLUME
CENTER
SUB WOOFER
SURROUND (R)
SURROUND (L)
5.1CH INPUT (R)
5.1CH INPUT (L)
MIC
MIC IN
SURR-L
SURR-R
CLK
DATA
STB
SIGNAL:
PB/MIC
CNA802
CNA601
J831
5.1CH INPUT
5.1CH INPUT (FRONT)
SURROUND
CENTER
SUB WOOFER
FROM A MAIN C.B (1/4)
TO A MAIN C.B (1/4) (AMP SECTION)

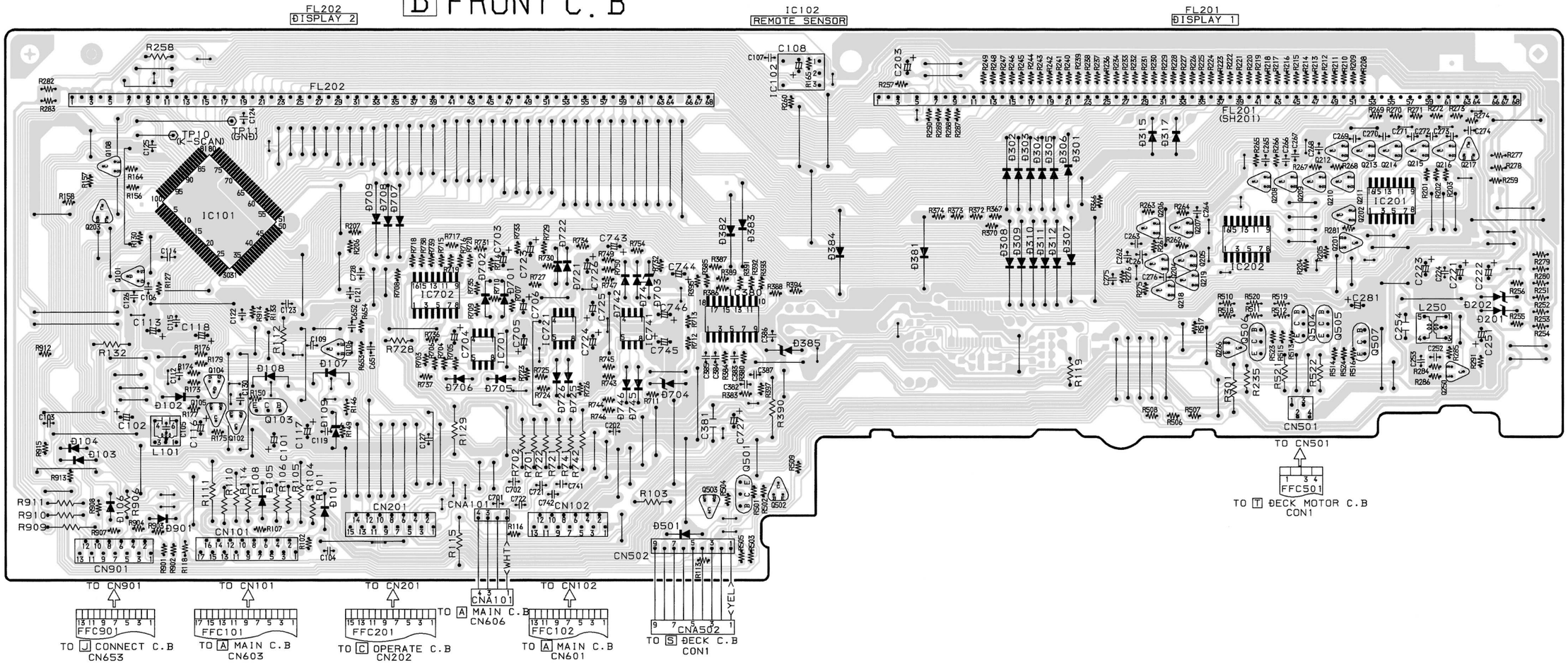
SCHEMATIC DIAGRAM – 5 (FAN)



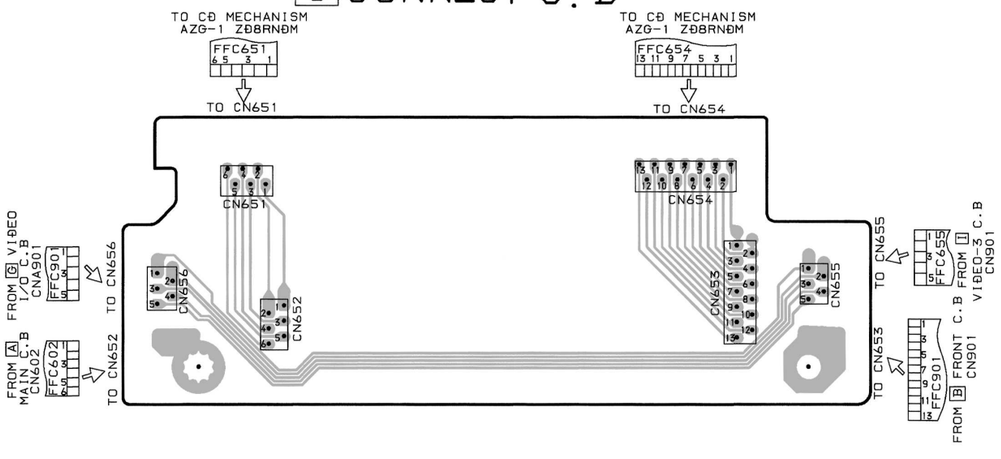
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

A B C D E F G H I J K L M N O P Q R S T U

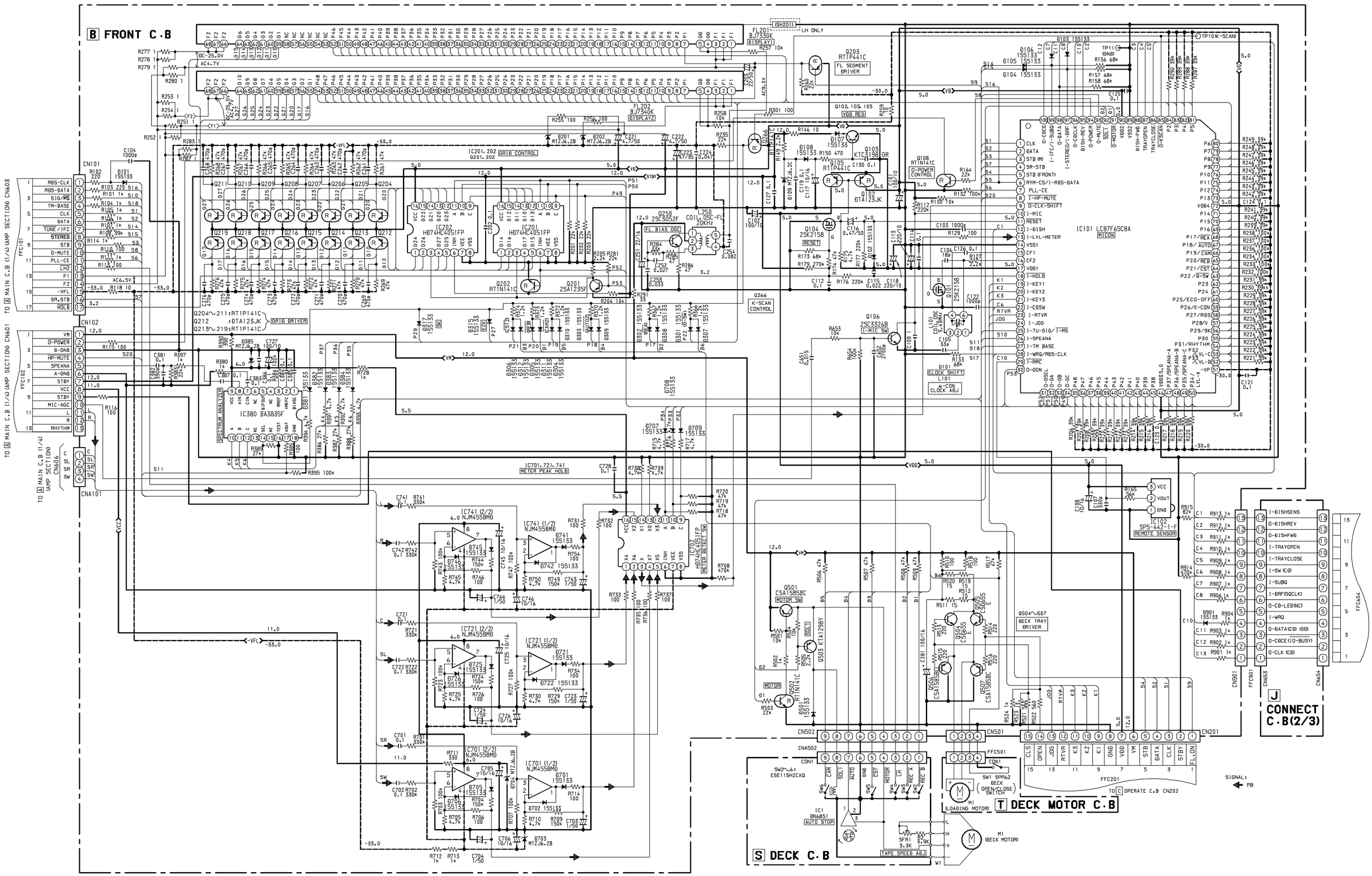
B FRONT C.B

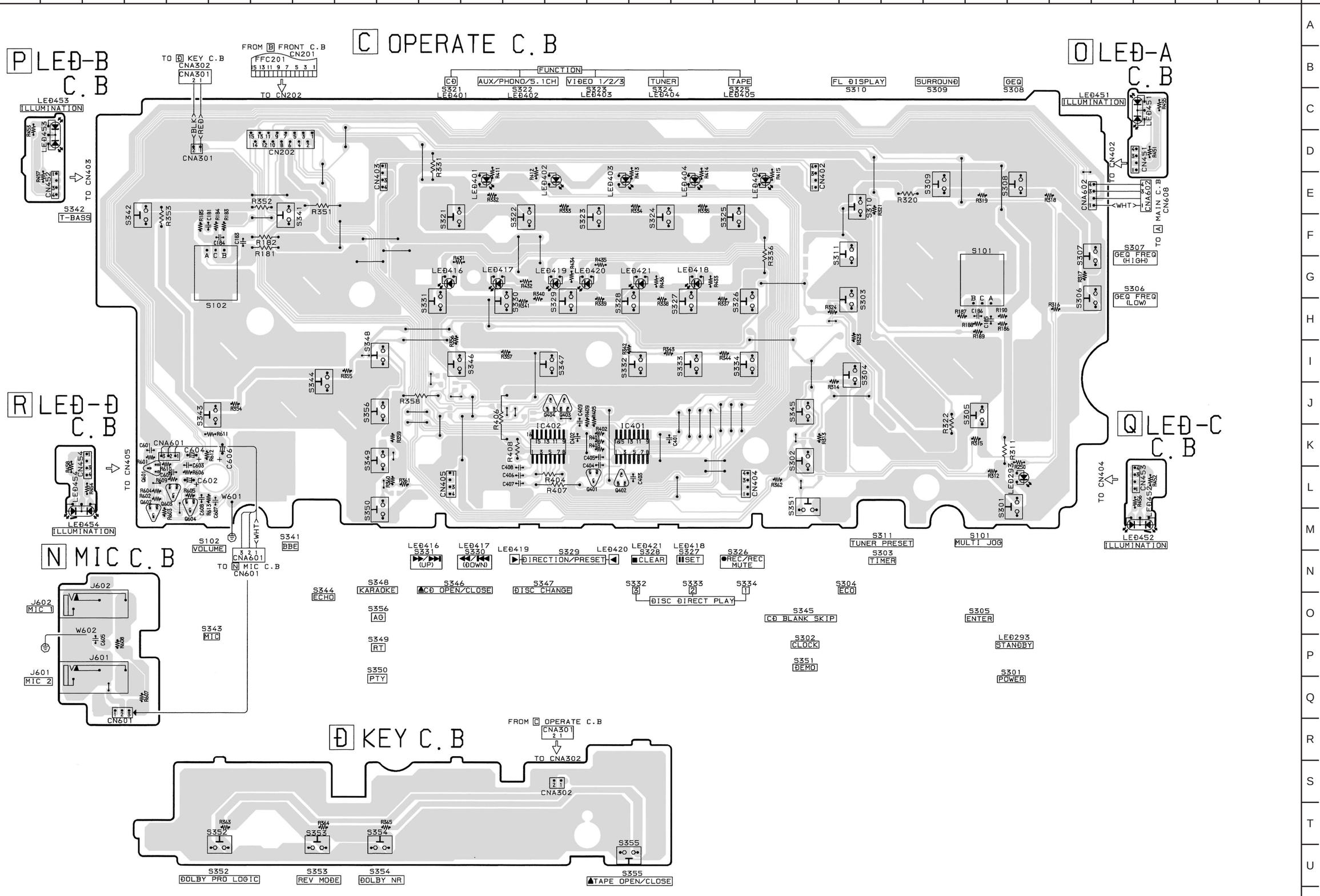


J CONNECT C.B

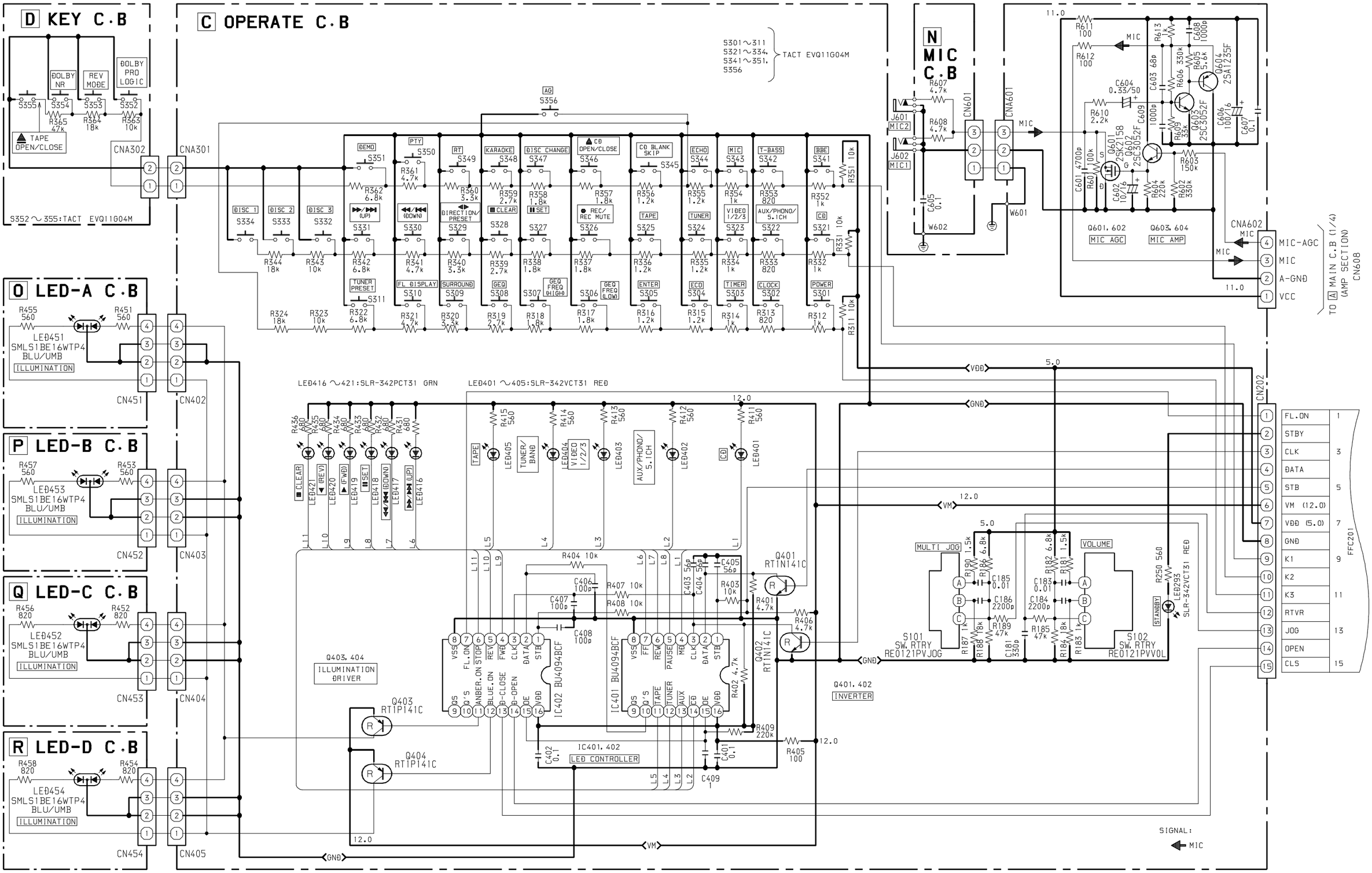


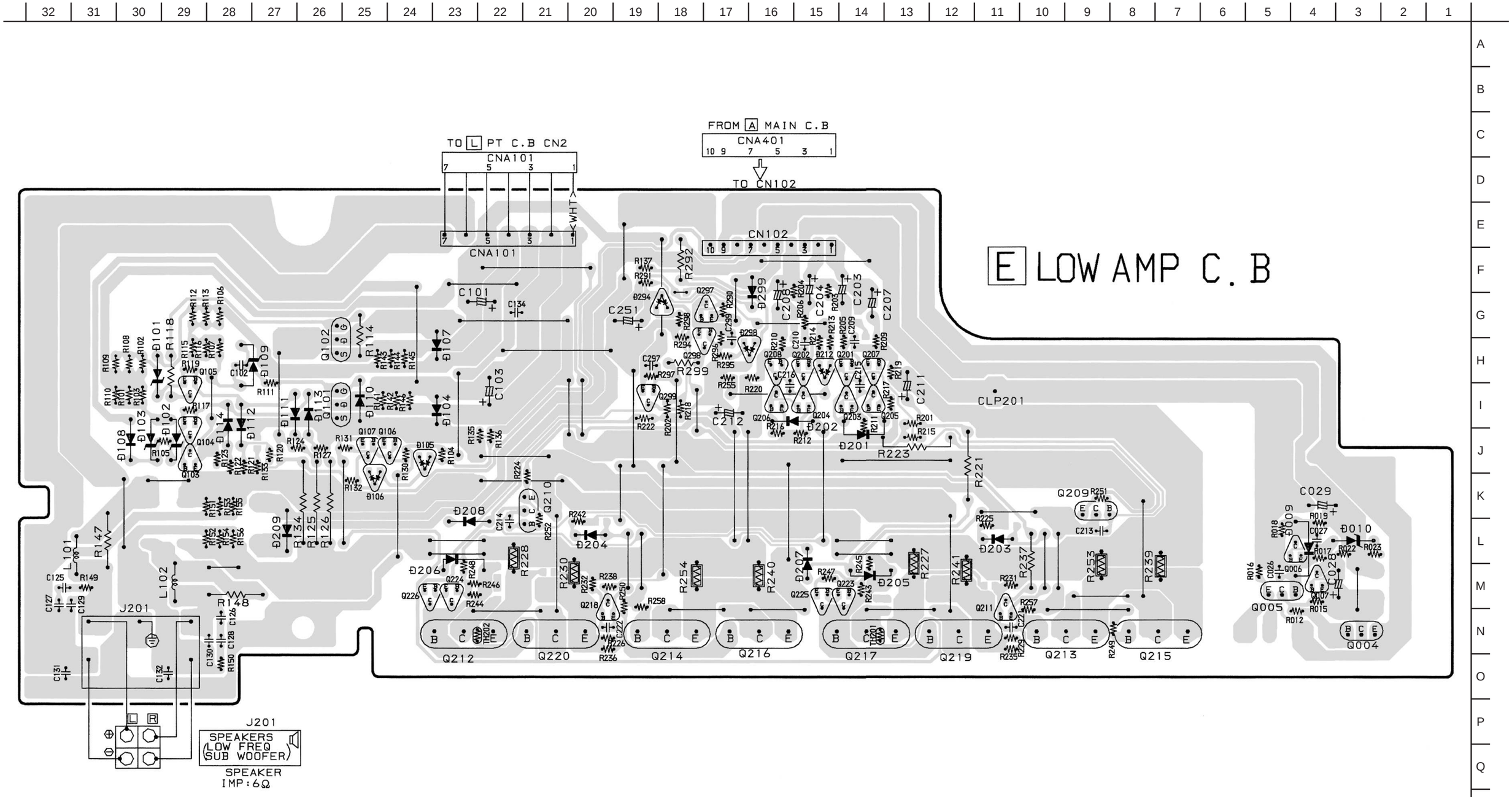
SCHEMATIC DIAGRAM – 6 (FRONT / CONNECT (2 / 3) / DECK / DECK MOTOR)

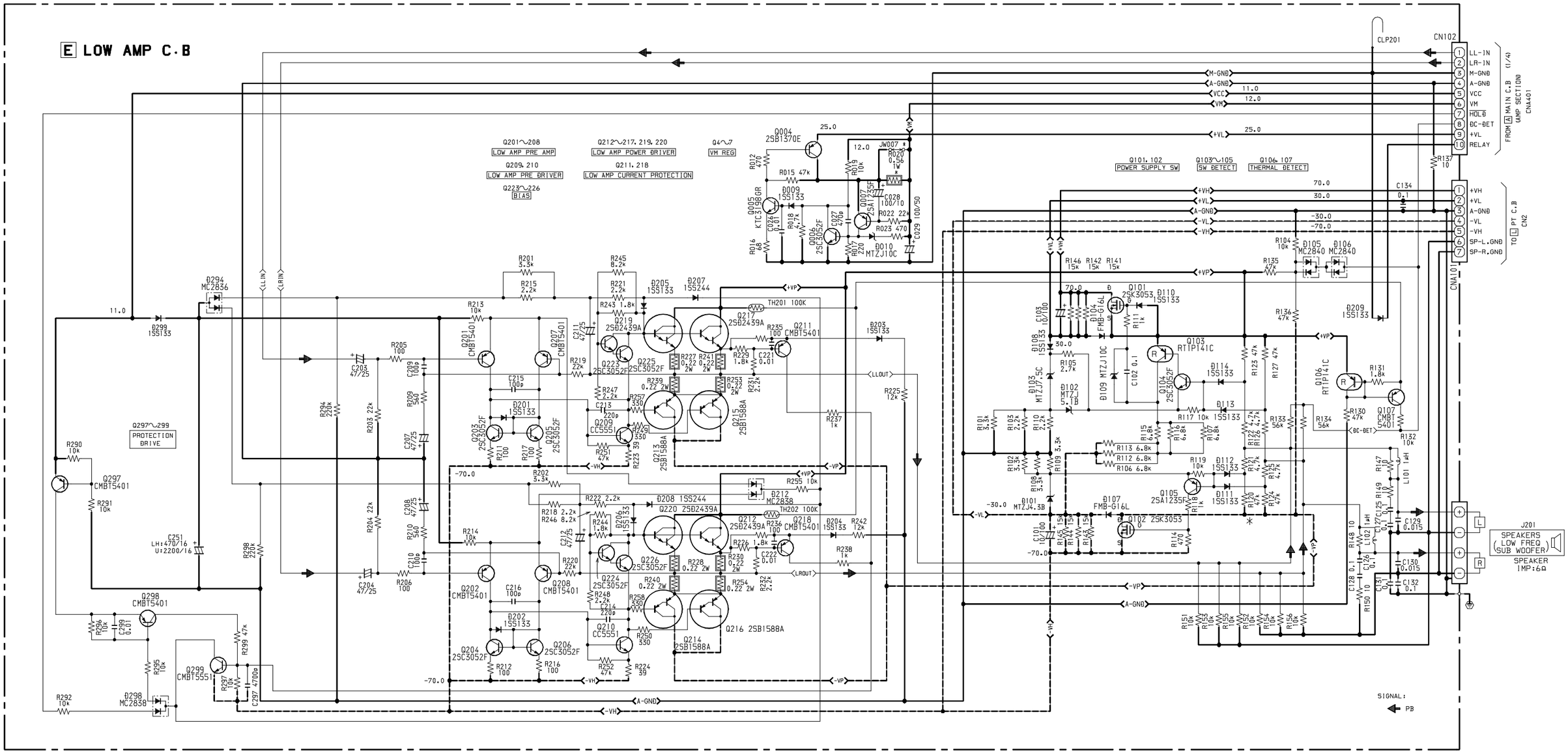


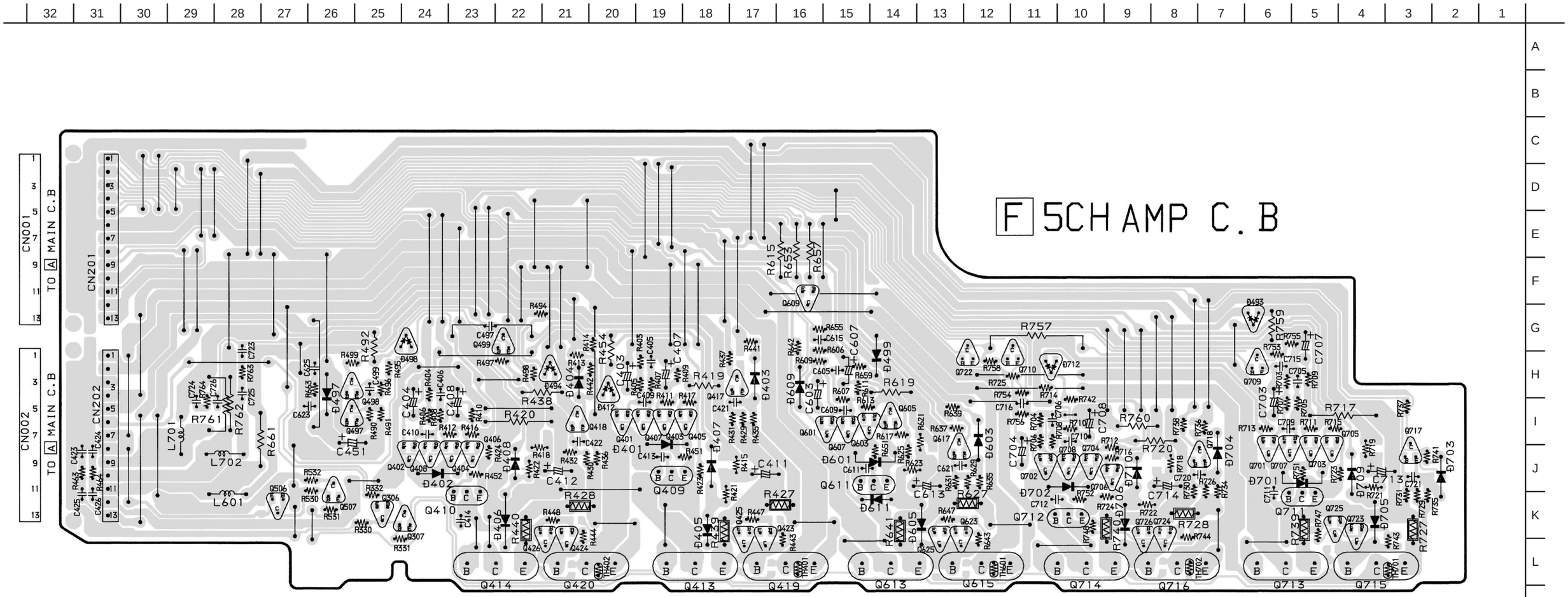

C OPERATE C.B
P LED-B C.B
O LED-A C.B
Q LED-C C.B
R LED-D C.B
N MIC C.B
D KEY C.B
FUNCTION
CD
AUX/PHONO/5.1CH
VIDEO 1/2/3
TUNER
TAPE
FL DISPLAY
SURROUND
GEQ
TO D KEY C.B CNA302 CNA301
FROM B FRONT C.B CN201 FFC201
TO CN202
BLK
RED
CNA301
CN202
LED453 ILLUMINATION
TO CN403
S342 T-BASS
S102 VOLUME
W601
WHT
CNA601
TO N MIC C.B CN601
S341 BBE
S321 LED401
S322 LED402
S323 LED403
S324 LED404
S325 LED405
S309
S308
S310
S311 TUNER PRESET
S303 TIMER
S101 MULTI JOG
S307 GEQ FREQ (HIGH)
S306 GEQ FREQ (LOW)
LED451 ILLUMINATION
TO CN402
CN602
WHT
TO A MAIN C.B CN608
LED454 ILLUMINATION
LED452 ILLUMINATION
TO CN404
LED293 STANDBY
S301 POWER
S302 CLOCK
S304 ECO
S305 ENTER
S345 CD BLANK SKIP
S351 DEMO
S326 REC/REC MUTE
S327 SET
S328 CLEAR
S329 DIRECTION/PRESET
S330 (DOWN)
S331 (UP)
S332 3
S333 2
S334 1
DISC DIRECT PLAY
S346 CD OPEN/CLOSE
S347 DISC CHANGE
S348 KARAOKE
S344 ECHO
S356 AG
S349 RT
S350 PTY
S343 MIC
J602 MIC 1
J601 MIC 2
CN601
FROM C OPERATE C.B CNA301
TO CNA302
CNA302
S352 DOLBY PRO LOGIC
S353 REV MODE
S354 DOLBY NR
S355 TAPE OPEN/CLOSE
IC402
IC401

SCHEMATIC DIAGRAM – 7 (OPERATE / KEY / MIC/ LED-A~D)

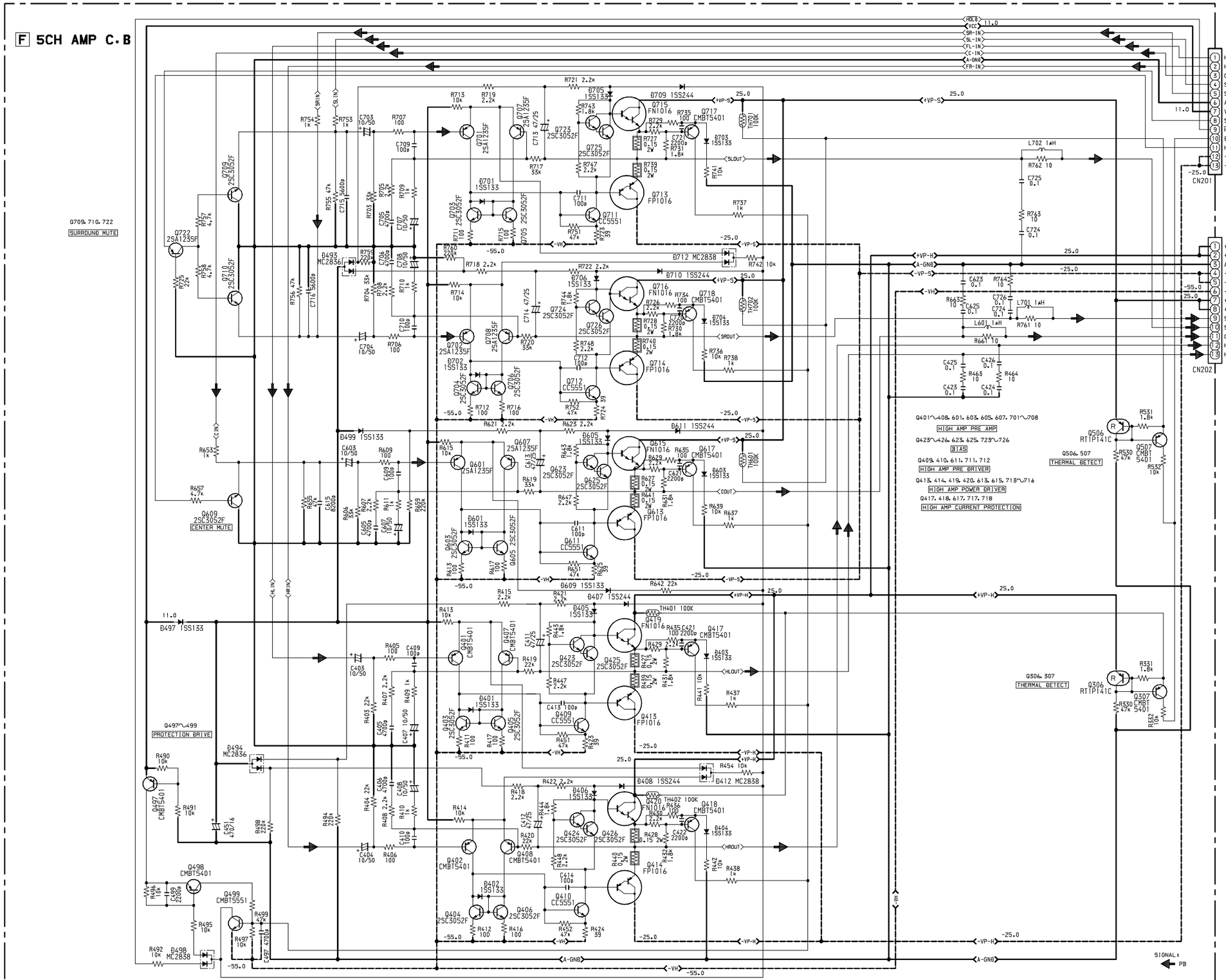



E LOW AMP C.B
TO L PT C.B CN2
CNA101
FROM A MAIN C.B
CNA401
TO CN102
CN102
CLP201
J201
SPEAKERS
(LOW FREQ
SUB WOOFER)
SPEAKER
IMP:6Ω

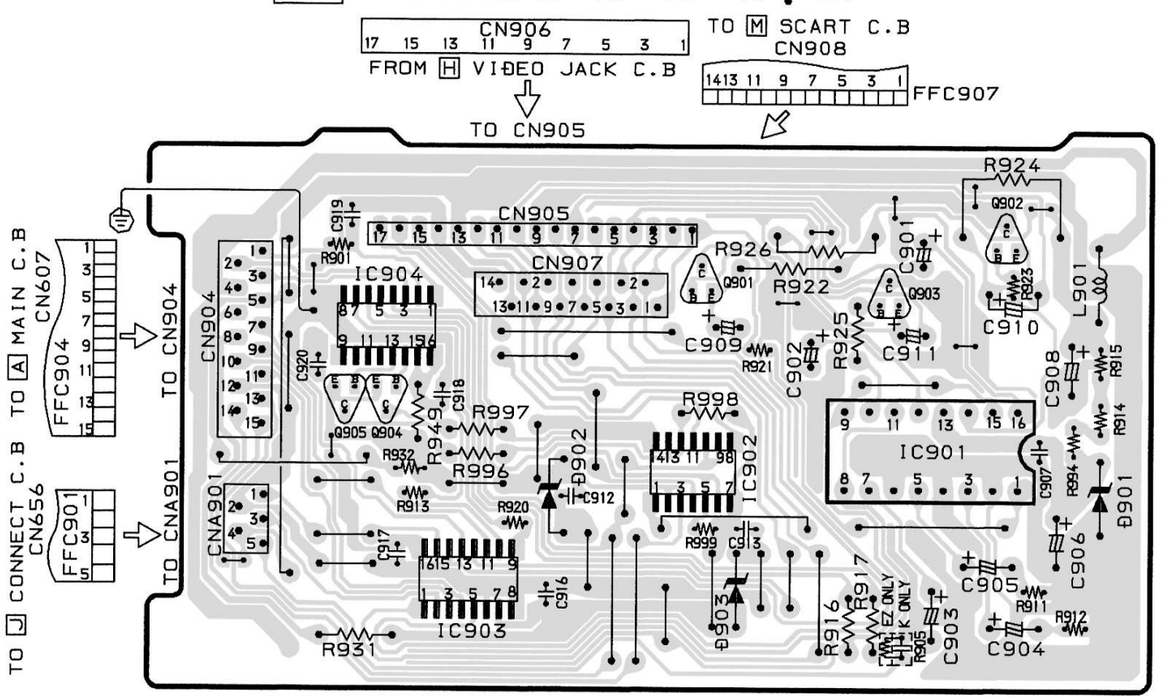

E LOW AMP C.B
CN102
CLP201
FROM A MAIN C.B (1/4) (AMP SECTION) CNA401
TO D PT C.B CN2
CNA101
LL-IN
LR-IN
M-GND
A-GND
VCC
VM
HOLD
DC-DET
+VL
RELAY
+VH
-VL
-VH
SP-L.GND
SP-R.GND
Q201~208 LOW AMP PRE AMP
Q209, 210 LOW AMP PRE DRIVER
Q223~226 BIAS
Q212~217, 219, 220 LOW AMP POWER DRIVER
Q211, 218 LOW AMP CURRENT PROTECTION
Q4~7 VM REG
Q101, 102 POWER SUPPLY SW
Q103~105 SW DETECT
Q106, 107 THERMAL DETECT
Q297~299 PROTECTION DRIVE
TH201 100K
TH202 100K
J201
SPEAKERS (LOW FREQ) (SUB WOOFER)
SPEAKER IMP:6Ω
SIGNAL: PB


F 5CH AMP C.B
CN001
TO A MAIN C.B
CN002
TO A MAIN C.B
CN201
CN202
L701
L702
L601
R761
R762
R661
R492
R757
R760
R720
R717
R619
R615
R653
R654
R438
R420
R428
R427
R641
R728
C403
C407
C607
C708
C714
C713
C709
C707
C703
C704
C705
C706
C712
C710
C716
C715
C720
C721
C722
C723
C724
C725
C726
C727
C728
C729
C730
C731
C732
C733
C734
C735
C736
C737
C738
C739
C740
C741
C742
C743
C744
C745
C746
C747
C748
C749
C750
C751
C752
C753
C754
C755
C756
C757
C758
C759

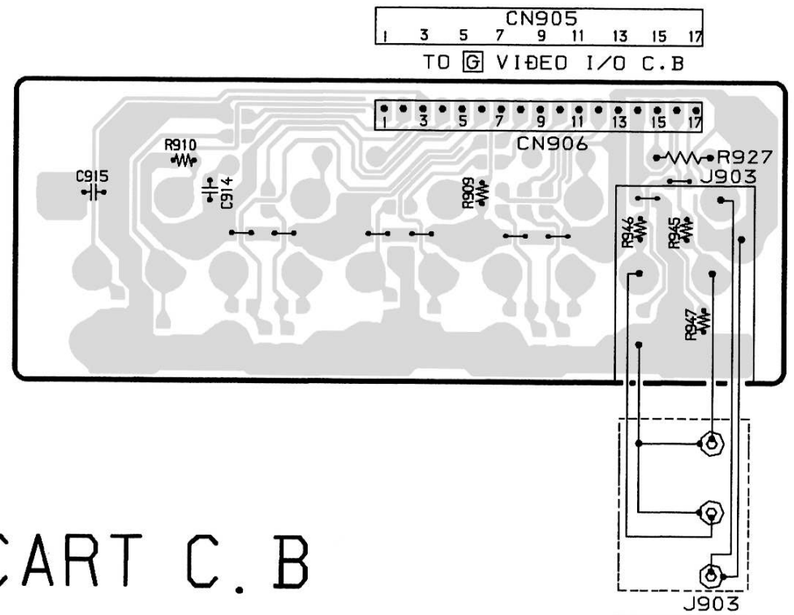
SCHEMATIC DIAGRAM – 9 (5CH AMP)



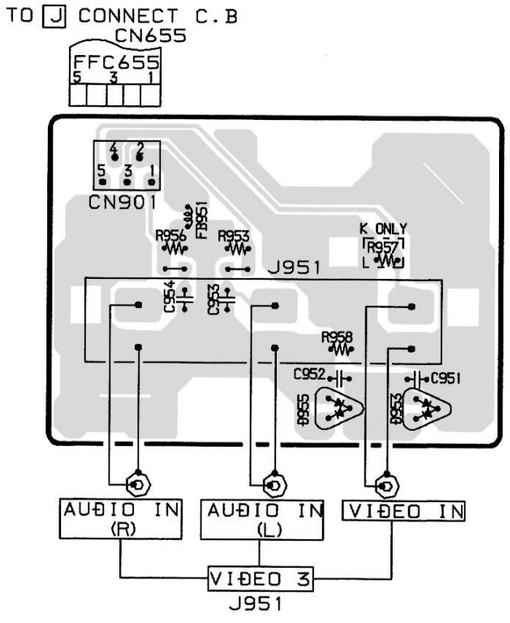
G VIÐEO I/O C.B



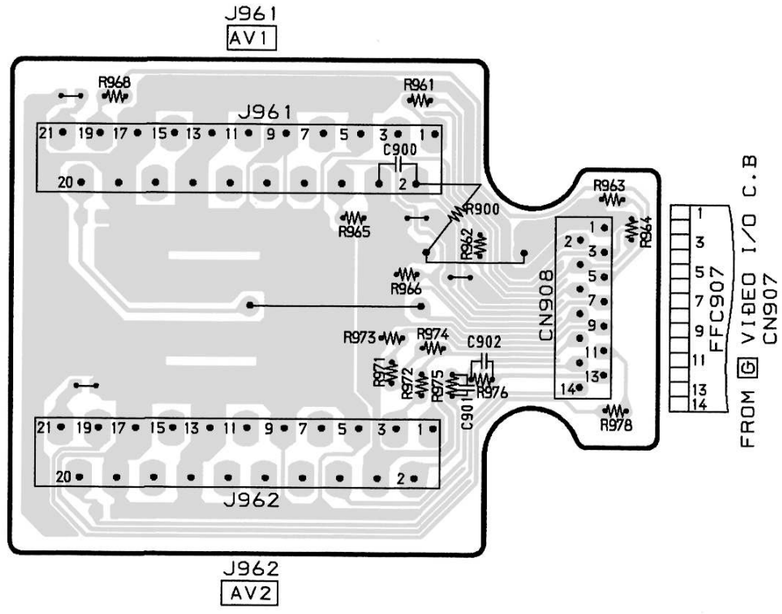
H VIÐEO JACK C.B

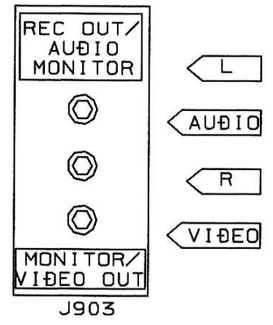


I VIÐEO-3 C.B

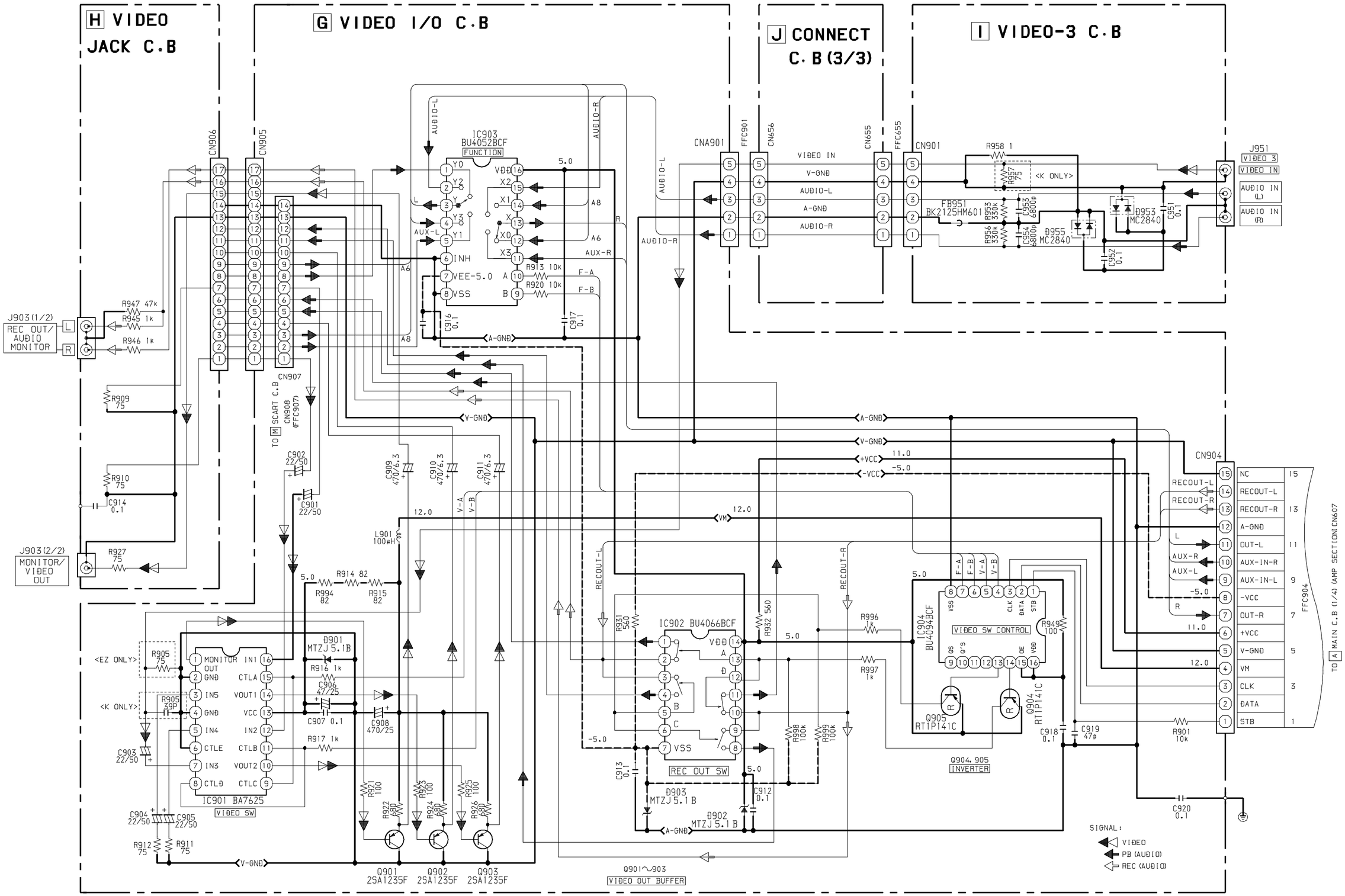


M SCART C.B

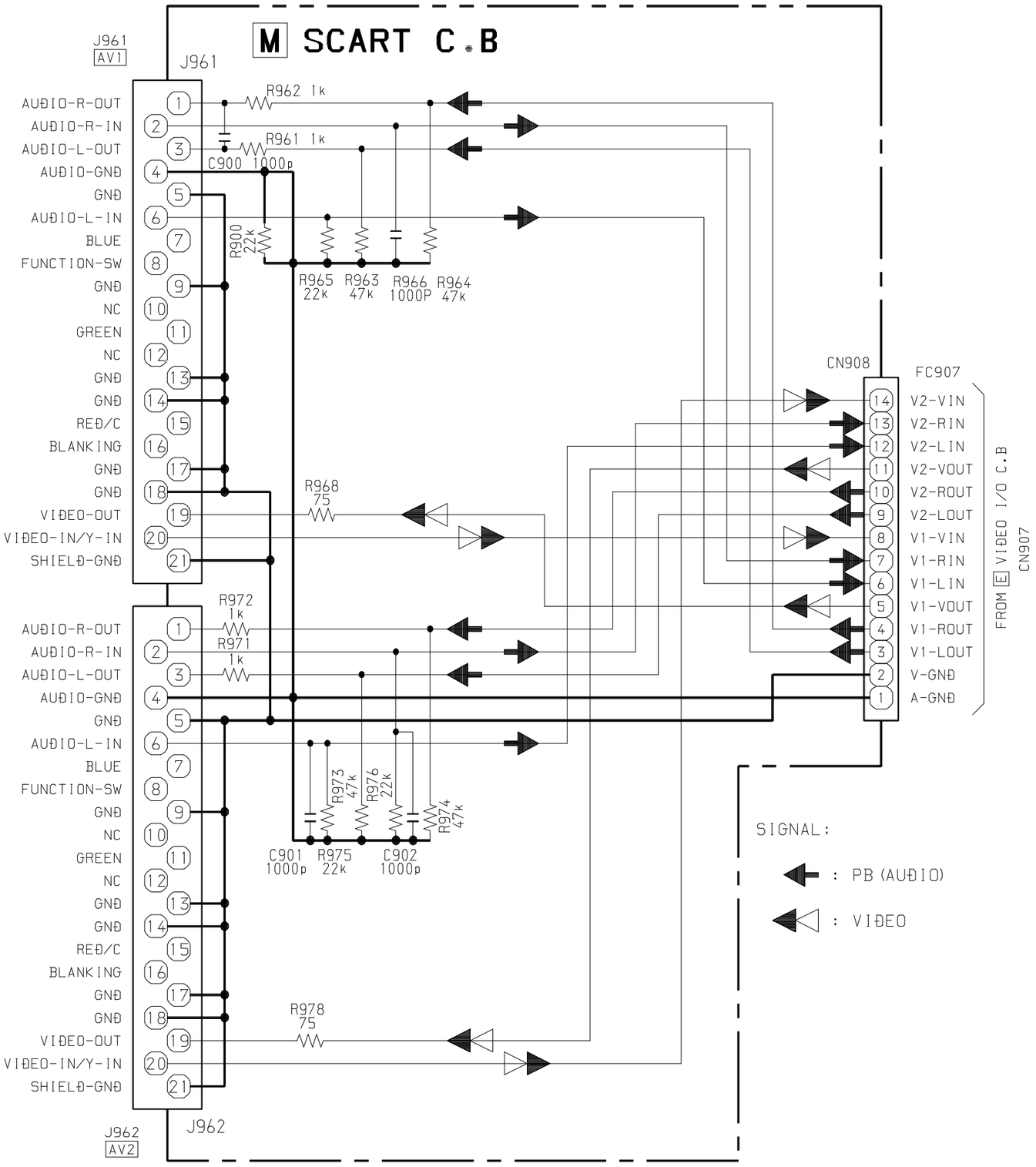




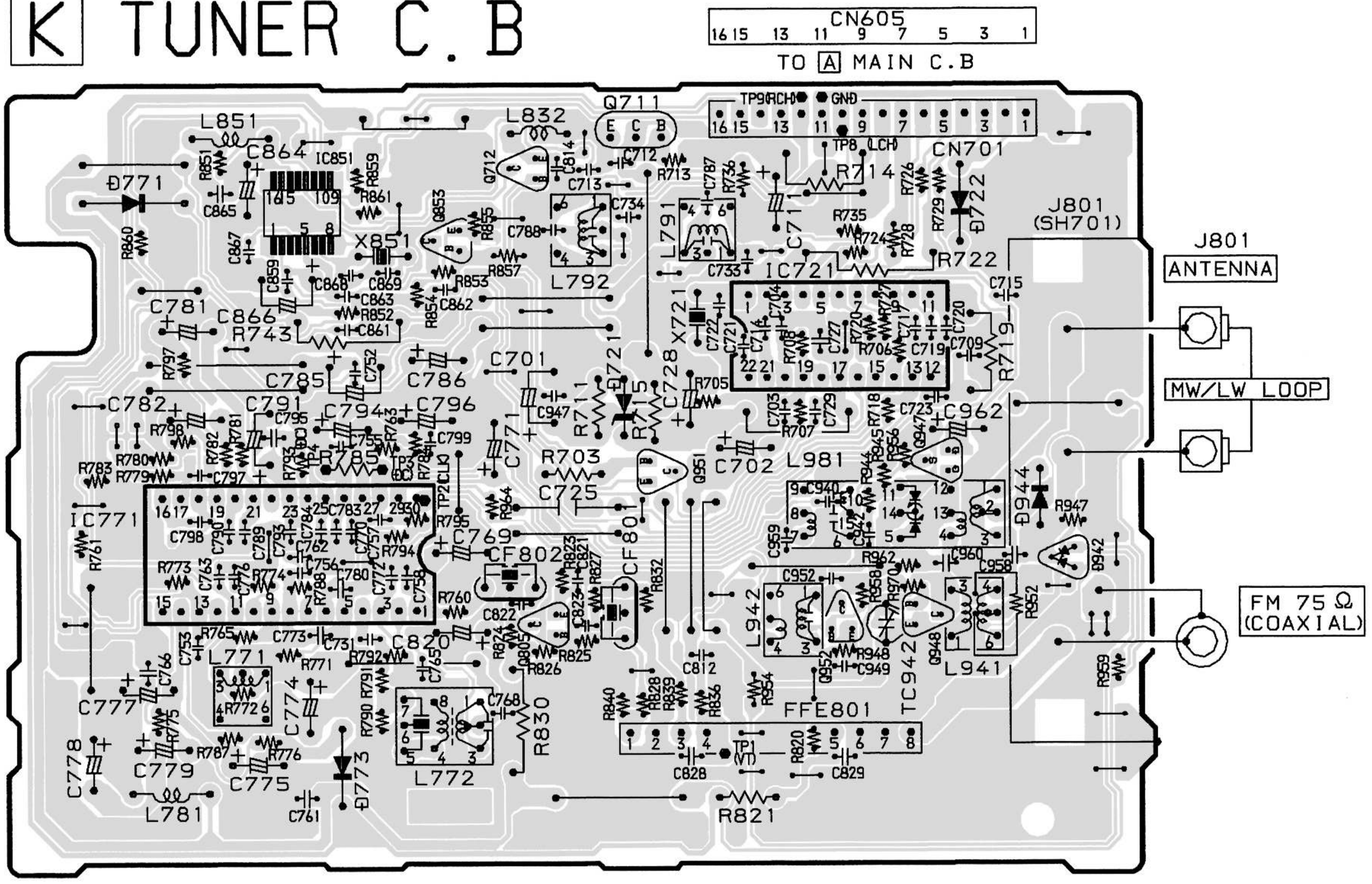
SCHEMATIC DIAGRAM – 10 (VIDEO I/O / VIDEO JACK / VIDEO-3 / CONNECT (3 / 3))



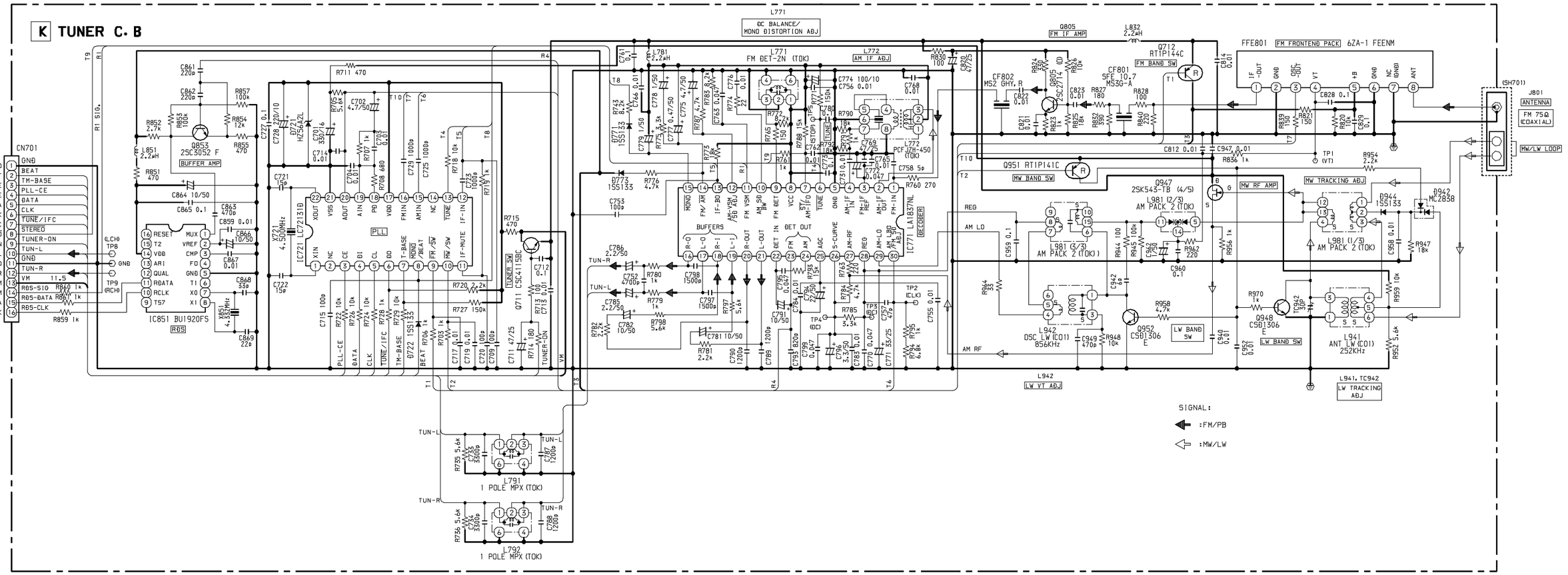
SCHEMATIC DIAGRAM – 11 (SCART)

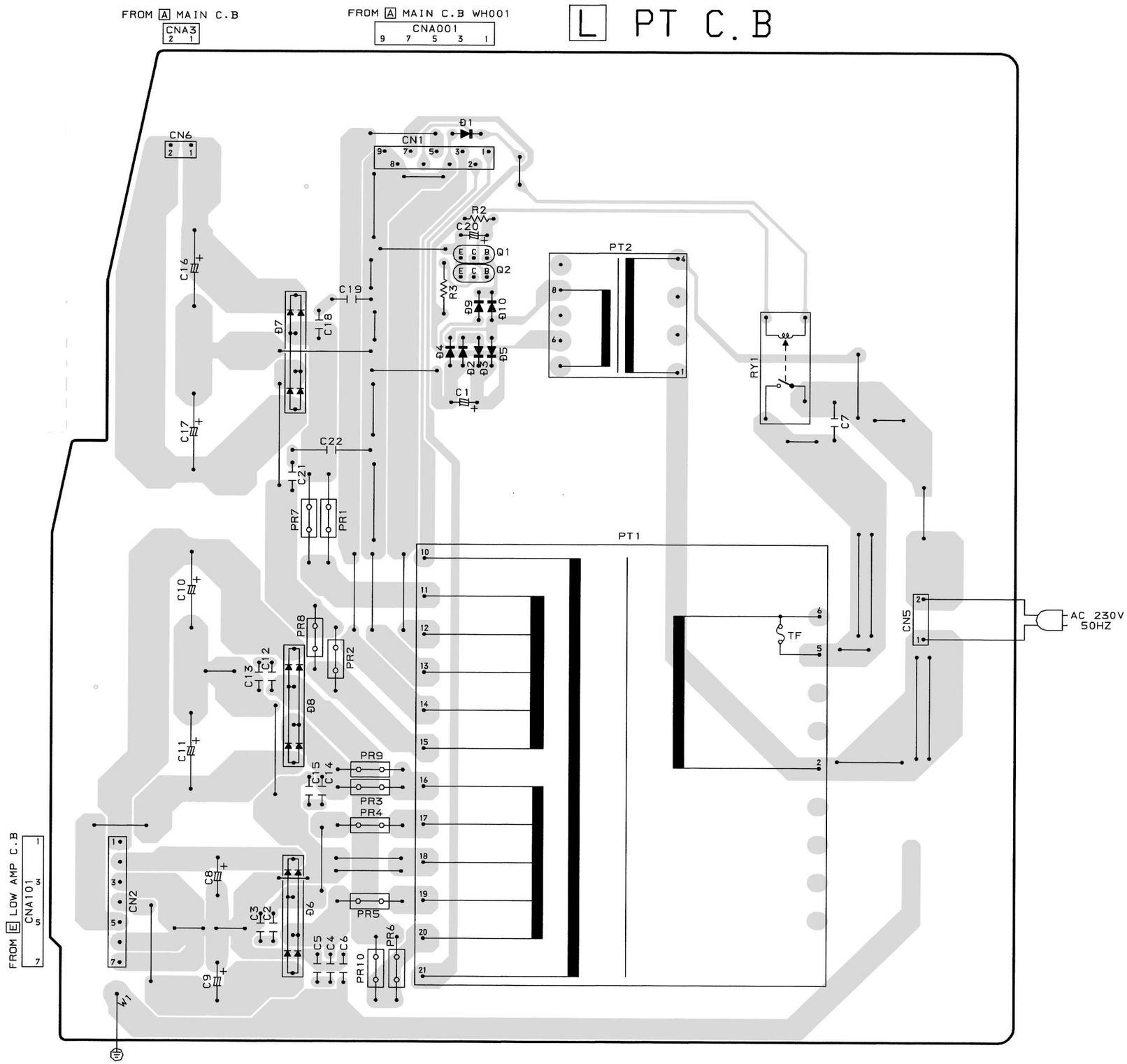


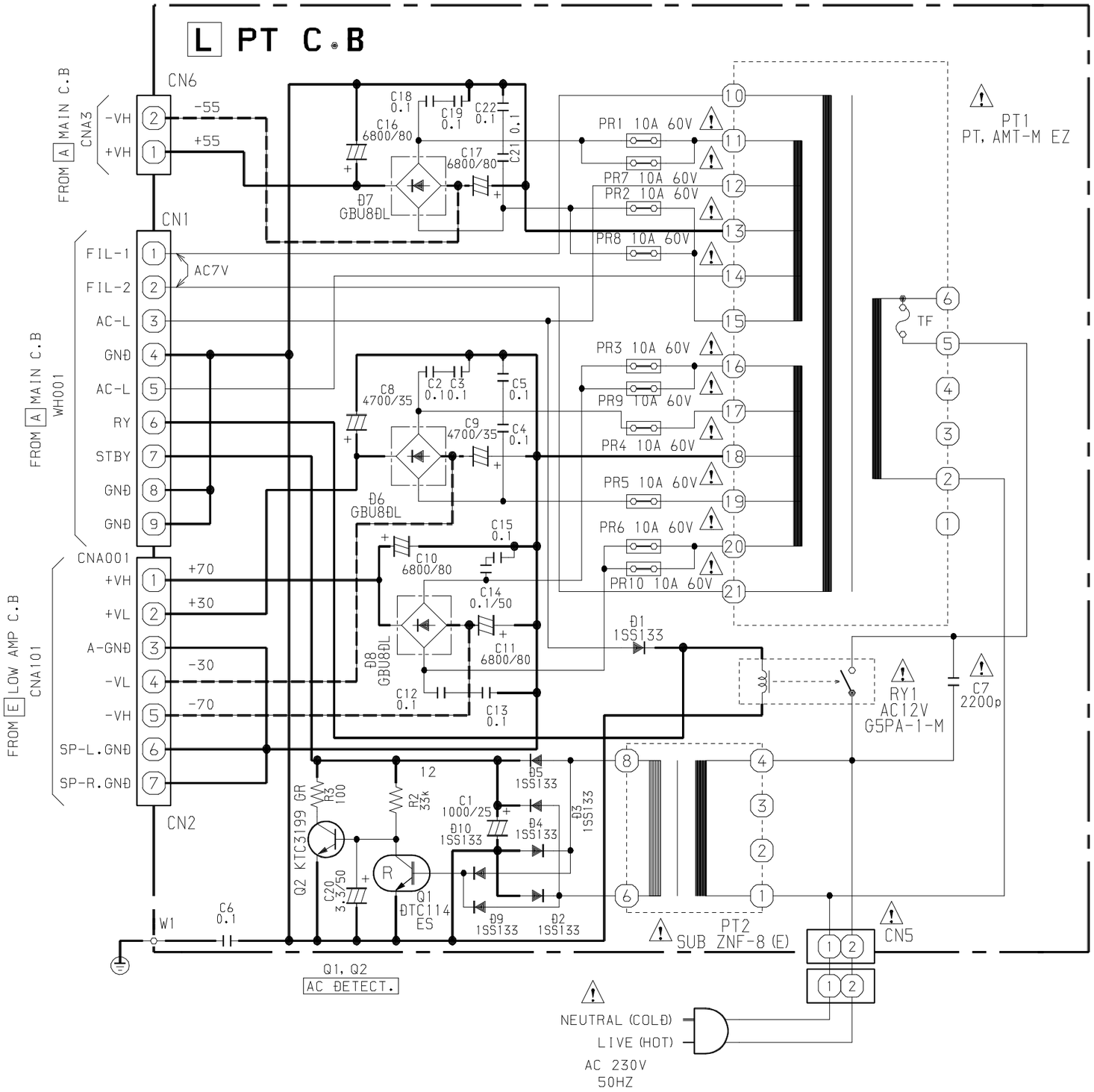
K TUNER C.B

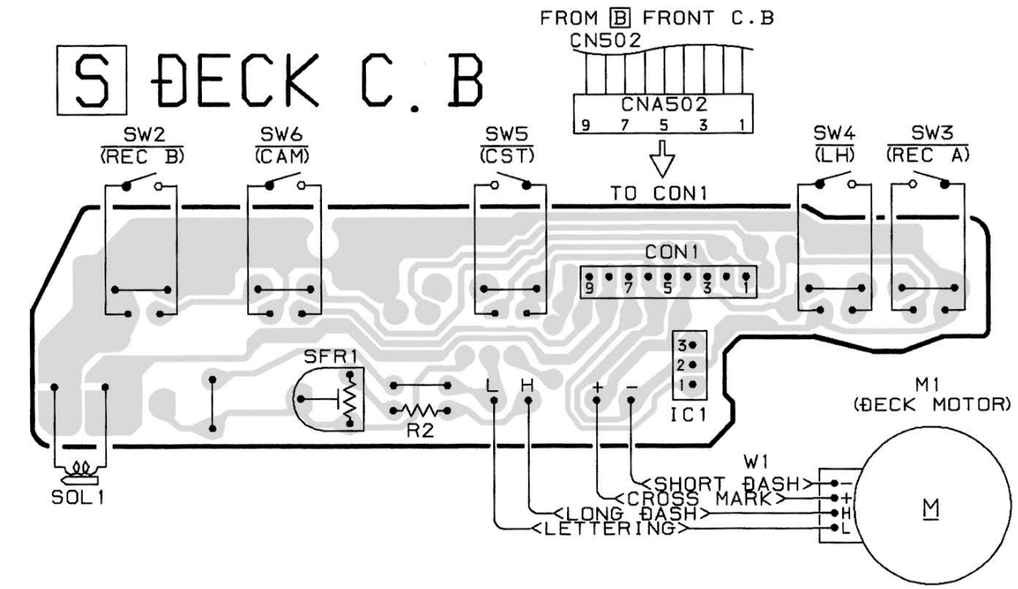

CN605
16 15 13 11 9 7 5 3 1
TO A MAIN C.B
TP9(RCH) GND
TP8 (LCH)
CN701
J801
(SH701)
J801
ANTENNA
MW/LW LOOP
FM 75Ω
(COAXIAL)
IC721
IC771
FFE801
TC942
L771
L772
L781
L791
L792
L941
L942
L981
X721
X851
IC851
Q711
Q712
Q853
Q951
D771
D772
D773
D944
D942
L851
L832
C864
C865
C866
C867
C868
C869
C781
C782
C785
C786
C791
C794
C796
C701
C771
C702
C725
C769
C820
C822
C774
C775
C777
C778
C779
C962
R703
R705
R711
R715
R714
R722
R743
R785
R821
R830
R840
R947
CF801
CF802

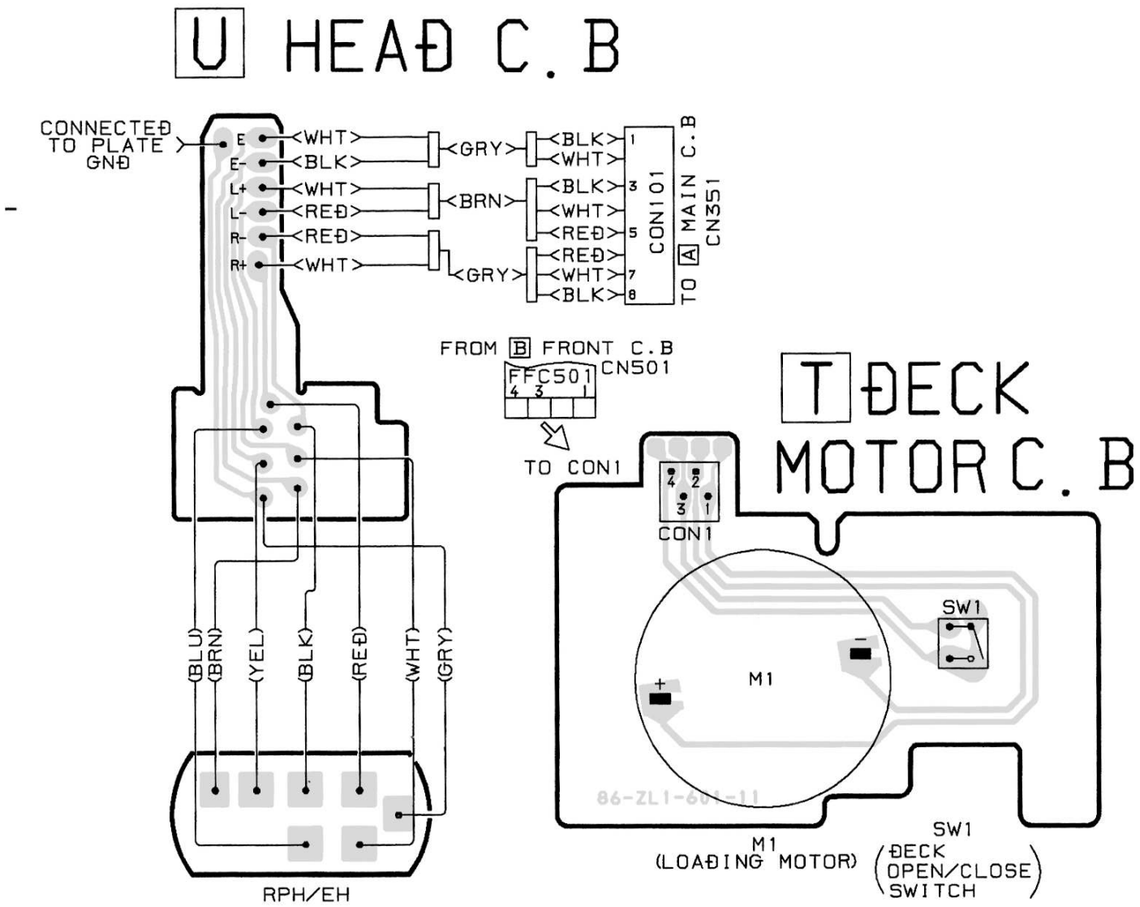
SCHEMATIC DIAGRAM – 12 (TUNER)




FROM A MAIN C.B
CNA3
FROM A MAIN C.B WH001
CNA001
L PT C.B
CN6
CN1
D1
R2
C20
Q1
Q2
C16
C19
R3
D9
D10
D7
C18
D4
D2
D3
D5
C1
PT2
RY1
C7
C17
C22
C21
PR7
PR1
PT1
C10
PR8
C12
C13
PR2
D8
C11
C15
C14
PR9
PR3
PR4
TF
CN5
AC 230V
50HZ
FROM E LOW AMP C.B
CNA101
CN2
C8
C3
C2
D6
C5
C4
C6
PR5
PR10
PR6
C9
W1

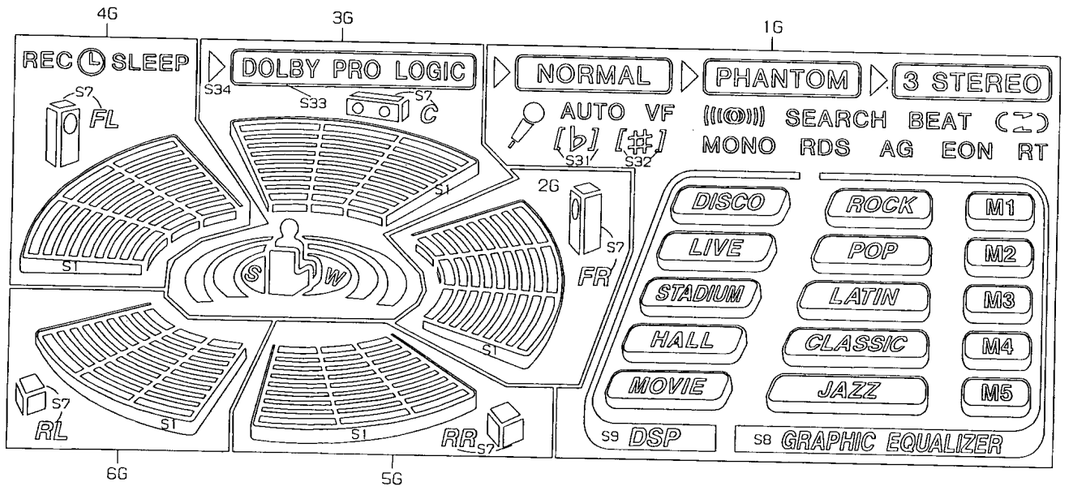

L PT C.B
CN6
FROM A MAIN C.B CNA3
-VH
+VH
-55
+55
CN1
FIL-1
FIL-2
AC-L
GNĐ
AC-L
RY
STBY
GNĐ
GNĐ
AC7V
FROM A MAIN C.B WH001
CNA001
+VH
+VL
A-GNĐ
-VL
-VH
SP-L.GNĐ
SP-R.GNĐ
+70
+30
-30
-70
FROM E LOW AMP C.B CNA101
CN2
C18 0.1
C19 0.1
C22 0.1
C16 6800/80
C17 6800/80
C21 0.1
Đ7 GBU8ĐL
C8 4700/35
C2 C3 0.10.1
C5 0.1
C9 4700/35
C4 0.1
Đ6 GBU8ĐL
C15 0.1
C10 6800/80
C14 0.1/50
Đ8 GBU8ĐL
C11 6800/80
C12 0.1
C13 0.1
PR1 10A 60V
PR7 10A 60V
PR2 10A 60V
PR8 10A 60V
PR3 10A 60V
PR9 10A 60V
PR4 10A 60V
PR5 10A 60V
PR6 10A 60V
PR10 10A 60V
Đ1 1SS133
PT1 PT, AMT-M EZ
TF
RY1 AC12V G5PA-1-M
C7 2200p
12
Đ5 1SS133
R3 100
R2 33k
C1 1000/25
Đ10 1SS133
Đ4 1SS133
Đ3 1SS133
Q2 KTC3199 GR
C20 3.3/50
Q1 ĐTC114 ES
Đ9 1SS133
Đ2 1SS133
PT2 SUB ZNF-8 (E)
CN5
W1
C6 0.1
Q1, Q2 AC ĐETECT.
NEUTRAL (COLĐ)
LIVE (HOT)
AC 230V 50HZ


S DECK C.B
FROM B FRONT C.B
CN502
CNA502
9 7 5 3 1
TO CON1
SW2 (REC B)
SW6 (CAM)
SW5 (CST)
SW4 (LH)
SW3 (REC A)
CON1
SFR1
R2
L H
+ −
IC1
M1 (DECK MOTOR)
W1
SOL1
SHORT DASH
CROSS MARK
LONG DASH
LETTERING
M


U HEAD C.B
CONNECTED TO PLATE GND
E
E-
L+
L-
R-
R+
WHT
BLK
RED
GRY
BRN
CON101
TO A MAIN C.B CN351
FROM B FRONT C.B
FFC501
CN501
TO CON1
(BLU)
(BRN)
(YEL)
(BLK)
(RED)
(WHT)
(GRY)
RPH/EH
T DECK MOTOR C.B
CON1
SW1
M1
M1 (LOADING MOTOR)
SW1 (DECK OPEN/CLOSE SWITCH)

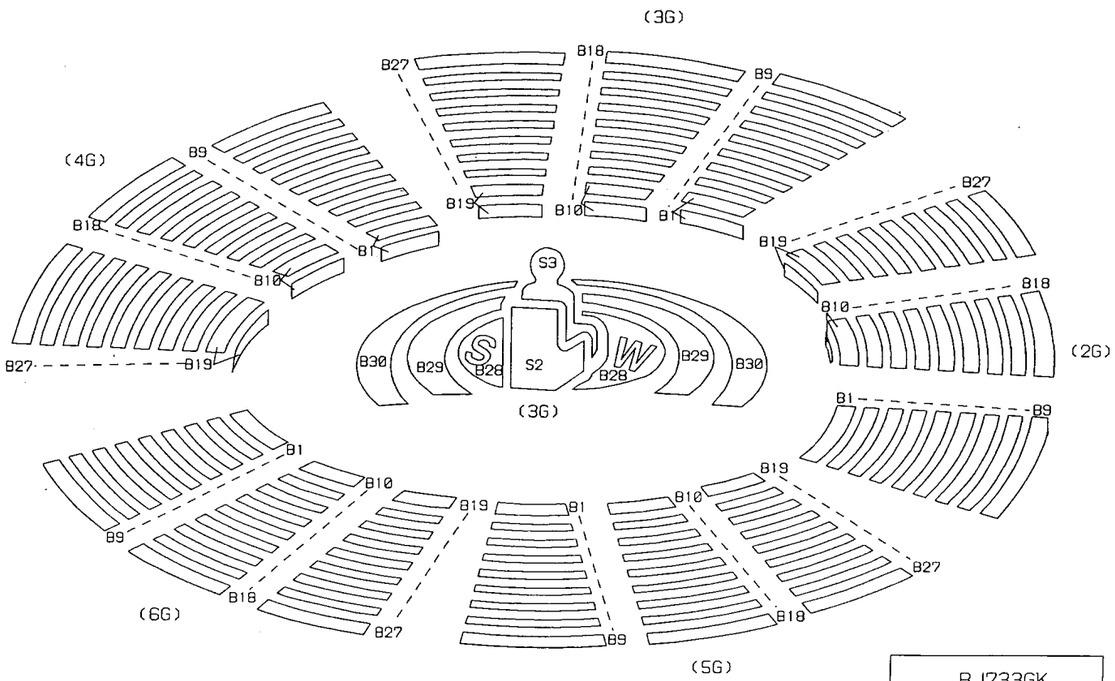
FL (BJ733GK) GRID ASSIGINMENT / ANODE CONNECTION PIN CONNECTION

GRID ASSIGNMENT



BJ733GK
GRID ASSIGNMENT

SEGMENT DESIGNATION



BJ733GK
SEGMENT. DESIGNATION

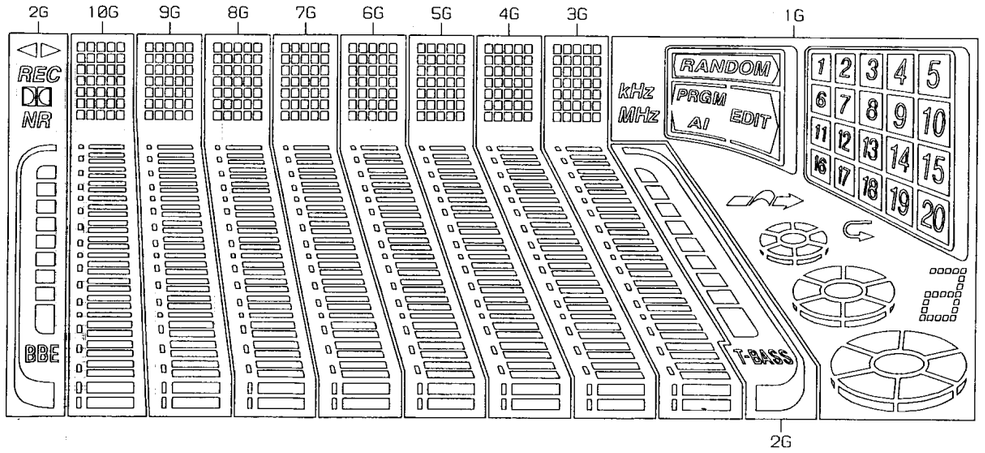
ANODE CONNECTION

	6G	5G	4G	3G	2G	1G
P1	–	–	–	S2	–	S8
P2	–	–	–	S3	–	S4
P3	–	–	–	B28	–	S10
P4	–	–	–	B29	–	S11
P5	–	–	–	B30	–	S12
P6	B1	B1	B1	B1	B1	S13
P7	B10	B10	B10	B10	B10	S14
P8	B19	B19	B19	B19	B19	S5
P9	B2	B2	B2	B2	B2	S15
P10	B11	B11	B11	B11	B11	S16
P11	B20	B20	B20	B20	B20	S17
P12	B3	B3	B3	B3	B3	S18
P13	B12	B12	B12	B12	B12	S19
P14	B21	B21	B21	B21	B21	S6
P15	B4	B4	B4	B4	B4	S20
P16	B13	B13	B13	B13	B13	S21
P17	B22	B22	B22	B22	B22	S22
P18	B5	B5	B5	B5	B5	S23
P19	B14	B14	B14	B14	B14	S24
P20	B23	B23	B23	B23	B23	S9
P21	B6	B6	B6	B6	B6	RT
P22	B15	B15	B15	B15	B15	EON
P23	B24	B24	B24	B24	B24	AG
P24	B7	B7	B7	B7	B7	RDS
P25	B16	B16	B16	B16	B16	MONO
P26	B25	B25	B25	B25	B25	BEAT
P27	B8	B8	B8	B8	B8	SEARCH
P28	B17	B17	B17	B17	B17	♭
P29	B26	B26	B26	B26	B26	♯
P30	B9	B9	B9	B9	B9	♪
P31	B18	B18	B18	B18	B18	((◉))
P32	B27	B27	B27	B27	B27	PHANTOM
P33	S1	S1	S1	S1	S1	S25
P34	S7	S7	S7	S7	S7	S26
P35	–	–	SLEEP	DOLBY PRO LOGIC	–	NORMAL
P36	–	–	◷	S33	–	S27
P37	–	–	REC	S34	–	S28
P38	–	–	–	–	–	3 STEREO
P39	–	–	–	–	–	S29
P40	–	–	–	–	–	S30
P41	–	–	–	–	–	♭ ♯
P42	–	–	–	–	–	S31
P43	–	–	–	–	–	S32
P44	–	–	–	–	–	VF
P45	–	–	–	–	–	AUTO
P46	–	–	–	–	–	♪

BJ733GK
ANODE CONNECTION

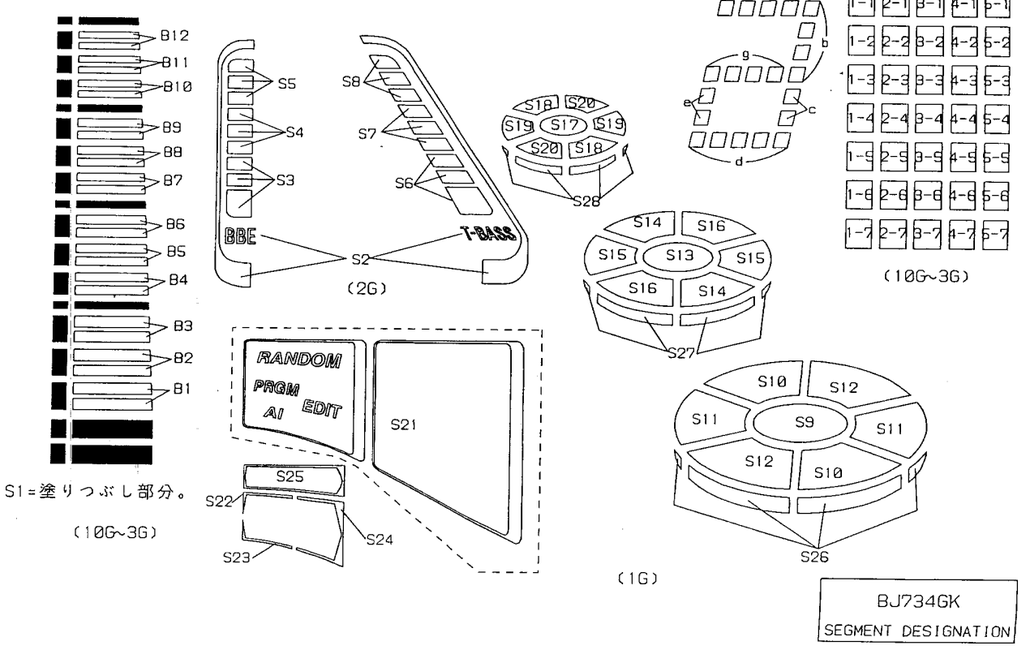
FL (BJ734GK) GRID ASSIGINMENT / ANODE CONNECTION PIN CONNECTION

GRID ASSIGNMENT



BJ734GK
GRID ASSIGNMENT

SEGMENT DESIGNATION



BJ734GK
SEGMENT DESIGNATION

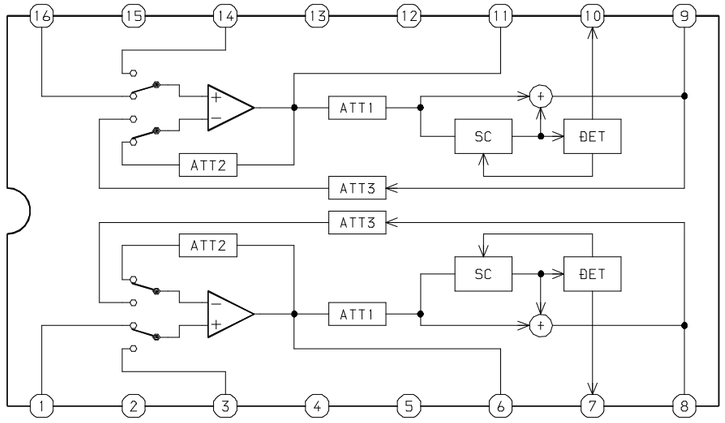
ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	S1	S1	S1	S1	S1	S1	S1	S1	S2	S21
P2	B1	B1	B1	B1	B1	B1	B1	B1	S3	a, g, d
P3	B2	B2	B2	B2	B2	B2	B2	B2	S4	e
P4	B3	B3	B3	B3	B3	B3	B3	B3	S5	c
P5	B4	B4	B4	B4	B4	B4	B4	B4	-	b
P6	B5	B5	B5	B5	B5	B5	B5	B5	-	S26
P7	B6	B6	B6	B6	B6	B6	B6	B6	-	S9
P8	B7	B7	B7	B7	B7	B7	B7	B7	-	S10
P9	B8	B8	B8	B8	B8	B8	B8	B8	-	S11
P10	B9	B9	B9	B9	B9	B9	B9	B9	-	S12
P11	B10	B10	B10	B10	B10	B10	B10	B10	S6	S27
P12	B11	B11	B11	B11	B11	B11	B11	B11	S7	S13
P13	B12	B12	B12	B12	B12	B12	B12	B12	S8	S14
P14	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	NR	S15
P15	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	DX	S16
P16	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	REC	S28
P17	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	◁	S17
P18	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	▷	S18
P19	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	-	S19
P20	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	-	S20
P21	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	-	↩
P22	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	-	↪
P23	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	-	5
P24	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	-	10
P25	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	-	15
P26	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	-	20
P27	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	-	4
P28	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	-	9
P29	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	-	14
P30	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	-	19
P31	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	-	3
P32	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	-	8
P33	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	-	13
P34	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	-	18
P35	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	-	2
P36	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	-	7
P37	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	-	12
P38	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	-	17
P39	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	-	1
P40	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	-	6
P41	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	-	11
P42	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	-	16
P43	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	-	S25
P44	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	-	S22
P45	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	-	S24
P46	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	-	S23
P47	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	-	kHz
P48	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	-	MHz

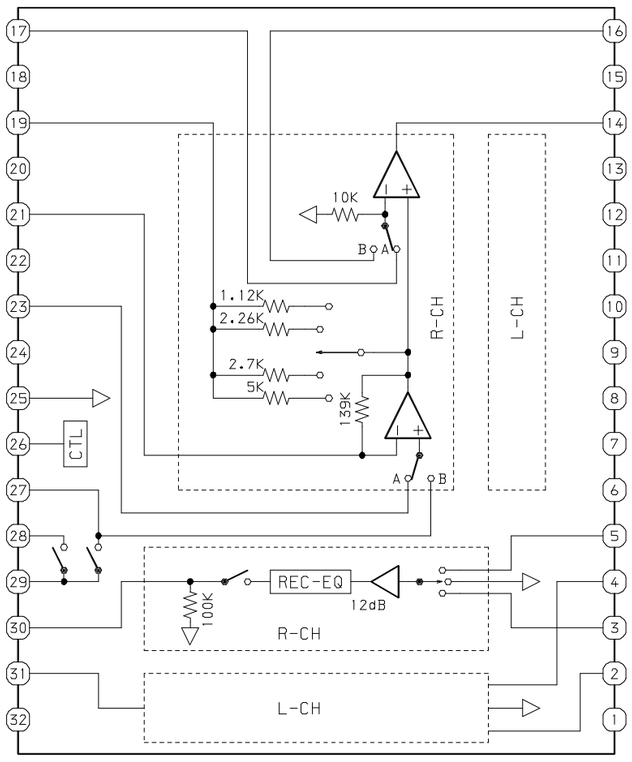
BJ734GK
ANODE CONNECTION

IC BLOCK DIAGRAM

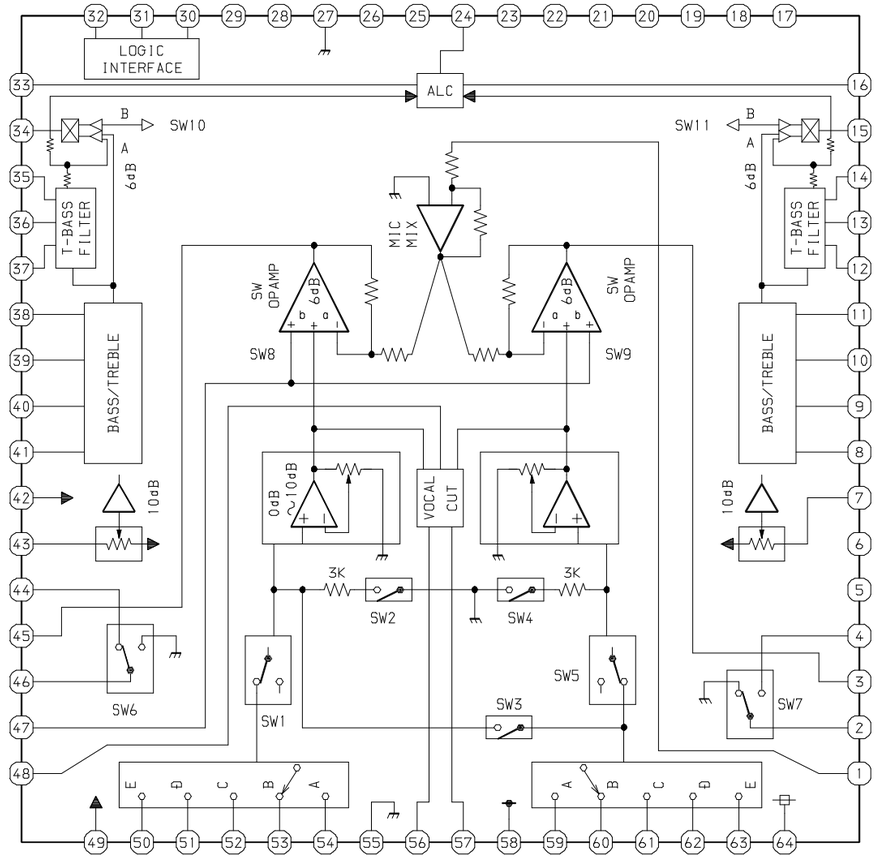
IC, CXA1553P



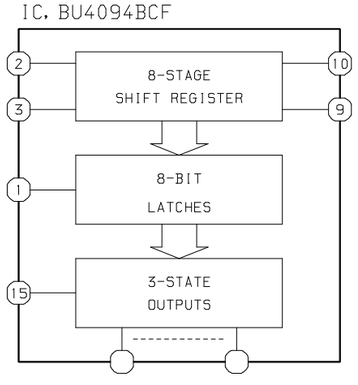
IC, BA7762AFS



IC, M62445AFP



IC, BU4094BCF

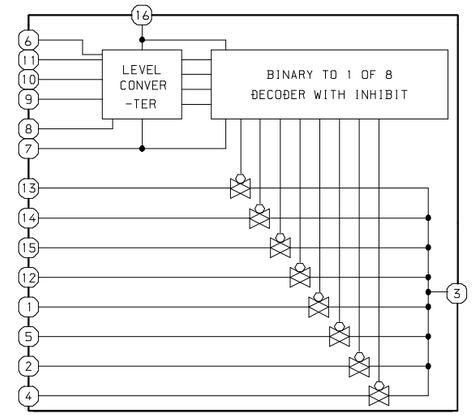


TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	ĐATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	QS	Q'S
↓	L	x	x	Z	Z	Q7	NO CHG.
↑	L	x	x	Z	Z	NO CHG.	QS
↓	H	L	x	NO CHG.	NO CHG.	Q7	NO CHG.
↓	H	H	L	L	Qn-1	Q7	NO CHG.
↓	H	H	H	H	Qn-1	Q7	NO CHG.
↑	H	x	x	NO CHG.	NO CHG.	NO CHG.	QS

Z = HIGH IMPEĐANCE
x = ĐON'T CARE

IC, HĐ74HC4051FP

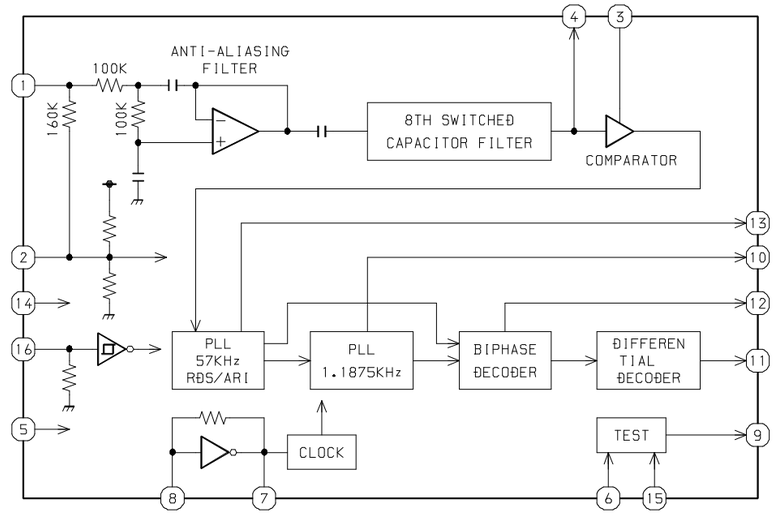


FUNCTION TABLE

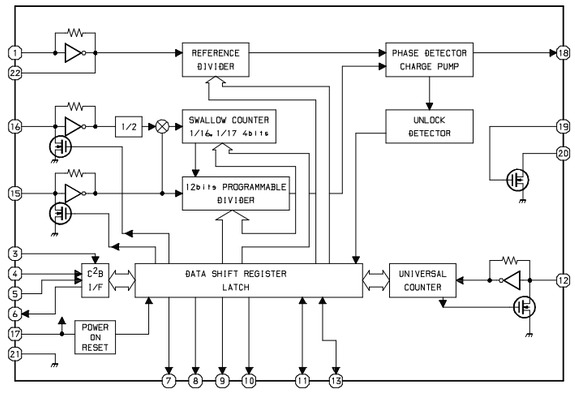
CONTROL INPUTS				ON SWITCH
INHIBIT	SELECT			
	C	B	A	
L	L	L	L	X0
L	L	L	H	X1
L	L	H	L	X2
L	L	H	H	X3
L	H	L	L	X4
L	H	L	H	X5
L	H	H	L	X6
L	H	H	H	X7
H	X	X	X	——

H:HIGH VOLTAGE LEVEL
L:LOW VOLTAGE LEVEL
X:IMMATERIAL

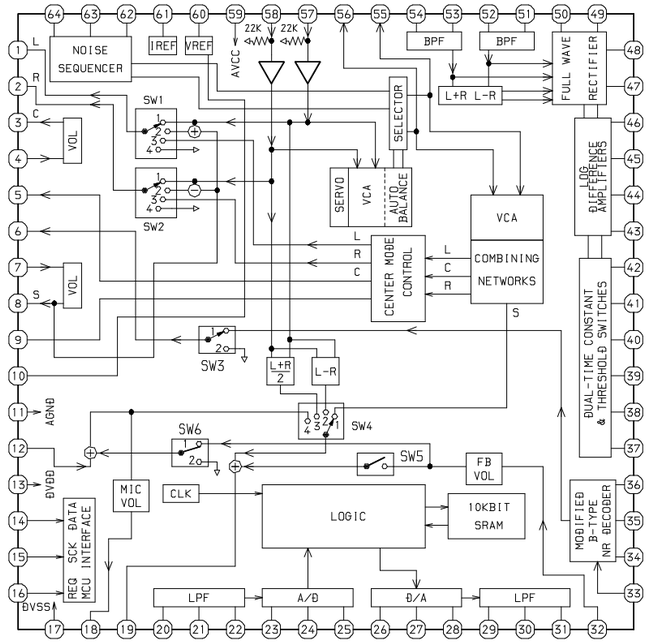
IC, BU1920FS



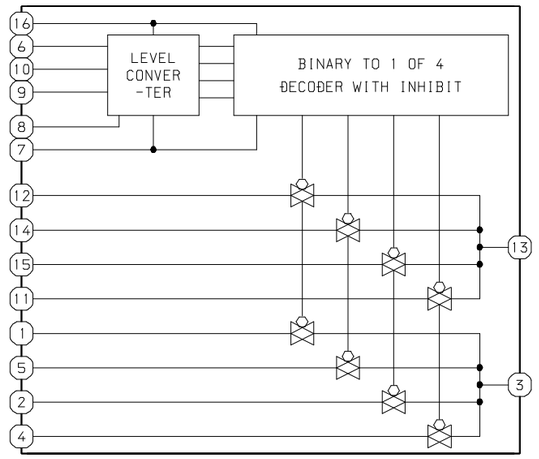
IC, LC72131Đ



IC, M62463AFP



IC, BU4052BCF

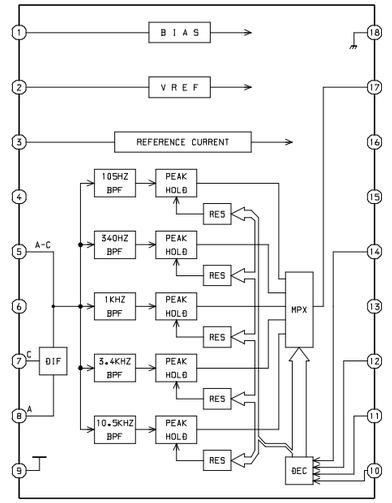


TRUTH TABLE

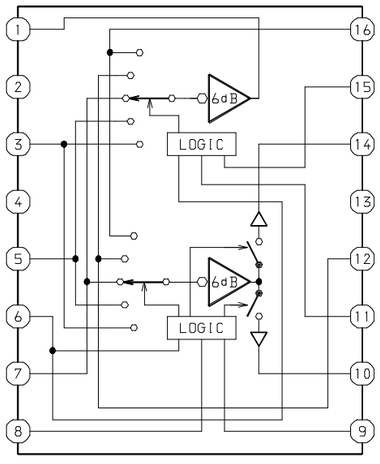
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X :ĐON'T CARE

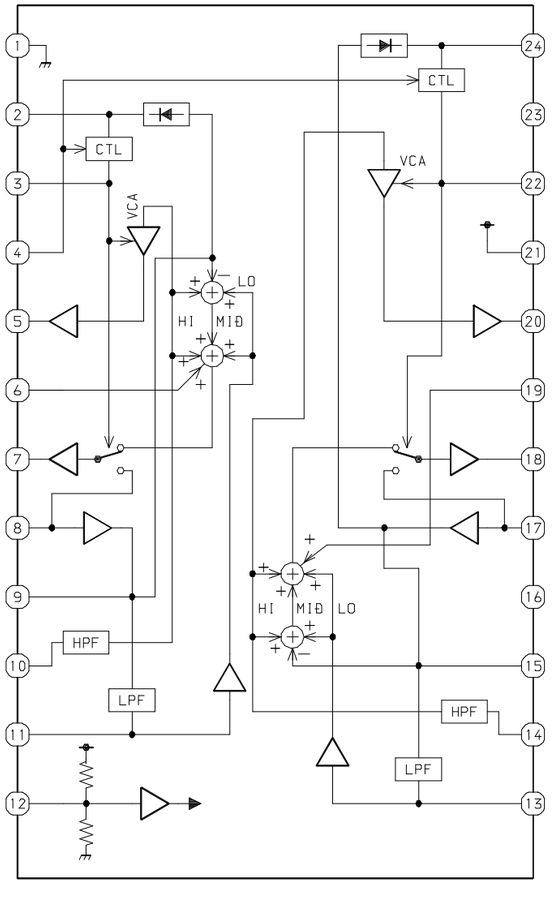
BA3835F



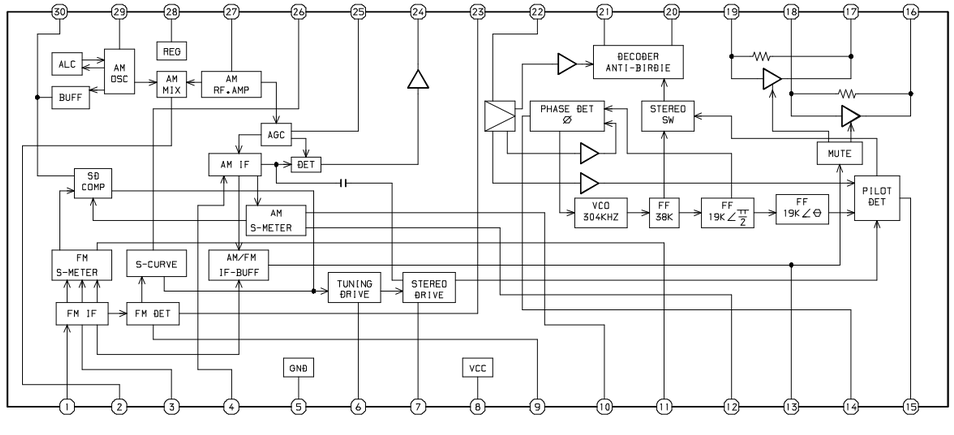
IC, BA7625



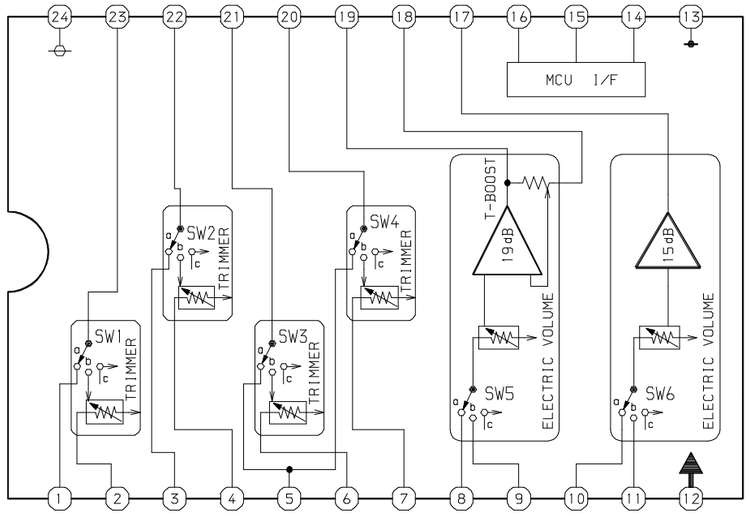
IC, BA3880FS



IC, LA1837NL



IC, M62491FP



IC DESCRIPTION

IC, LC87F65C8A

Pin No.	Pin Name	I/O	Description
1	CLK	O	Clock output for MAIN, FRONT IC.
2	DATA	O	Data output for MAIN, FRONT IC.
3	STB(M)	O	Strobe output for MAIN's IC.
4	SR-STB	O	Strobe output for video switch controller.
5	STB(FRONT)	O	Strobe output for FRONT LED controller.
6	RYM-CS / I-RDS-DATA	I	Rhythm IC's chip select / RDS data input.
7	PLL-CE	O	PLL chip enable output.
8	$\overline{\text{I-HP-MUTE}}$	I	Headphone input detect.
9	$\overline{\text{O-CLK-SHIFT}}$	O	Micon clock shift control.
10	I-MIC	I	Microphone input detect.
11	$\overline{\text{RESET}}$	I	Micon reset.
12	I-DISH	I	CD dish position input.
13	I-LVL-METER	I	Level meter (surround status) input.
14	VSS1	–	GND.
15	CF1	I	Micon clock (9.43MHz) input.
16	CF2	O	Micon clock (9.43MHz) output.
17	VDD1	–	5V supply.
18	$\overline{\text{I-HOLD}}$	I	AC detect and abnormal condition detect.
19	I-KEY1	I	AD key input 1.
20	I-KEY2	I	AD key input 2.
21	I-KEY3	I	AD key input 3.
22	I-CDSW	I	CD tray position detect.
23	I-RTVR	I	Rotary encoder volume input.
24	I-JOG	I	Rotary encoder jog dial input.
25	I-TU-SIG / $\overline{\text{I-MS}}$	I	Tuner signal indicator input / MS detect.
26	I-SPEANA	I	Spectrum analyzer level input.
27	I-TM-BASE	I	Time base input for clock.
28	I-WRQ / RDS-CLK	I	CD WRQ input / RDS clock input.
29	$\overline{\text{I-RMC}}$	I	Remote commander signal input.
30	O-GON	O	FL grid driver control.
31	O-GSEL	O	FL grid driver control.
32	O-GA	O	FL grid driver control.
33	O-GB	O	FL grid driver control.
34	O-GC	O	FL grid driver control.
35 ~ 45	P48 ~ P38	O	FL segment driver output.
46	VDD3	–	5V supply.
47	P37 / SPEANA-A	O/I	FL segment driver output / Spectrum analyzer input timing control-A.
48	P36 / SPEANA-B	O/I	FL segment driver output / Spectrum analyzer input timing control-B.
49	P35 / SPEANA-C	O/I	FL segment driver output / Spectrum analyzer input timing control-C.
50	P34 / LVL-A	O/I	FL segment driver output / Level meter input timing control-A.

Pin No.	Pin Name	I/O	Description
51	–VP	–	–30V supply.
52	P33 / LVL-B	O/I	FL segment driver output / Level meter input timing control-B.
53	P32 / LVL-C	O/I	FL segment driver output / Level meter input timing control-C.
54	P31 / RHYTHM	O/I	FL segment driver output / Initial select rhythm.
55	P30	O	FL segment driver output.
56	P29 / 9K	O/I	FL segment driver output / Initial select 9K (not used).
57	P28 / V	O/I	FL segment driver output / Initial select V model (not used).
58	P27 / RDS	O/I	FL segment driver output / Initial select RDS.
59	P26 / K-CON	O/I	FL segment driver output / Initial select key control (not used).
60	P25 / ECO-OFF	O/I	FL segment driver output / Initial select ECO mode off.
61 ~ 62	P24 ~ P23	O	FL segment driver output.
63	P22 / $\overline{\text{D-SW}}$	O/I	FL segment driver output / Deck tray switch detect.
64	P21 / $\overline{\text{CST}}$	O/I	FL segment driver output / Cassette detect.
65	P20 / $\overline{\text{REB}}$	O/I	FL segment driver output / Record enable switch-B side detect.
66	P19 / $\overline{\text{CAM}}$	O/I	FL segment driver output / Deck cam switch detect.
67	P18 / $\overline{\text{AUTO}}$	O/I	FL segment driver output / Deck auto pulse detect.
68	P17 / $\overline{\text{REA}}$	O/I	FL segment driver output / Record enable switch-A side detect.
69 ~ 71	P16 ~ P14	O	FL segment driver output.
72	VDD4	–	5V supply.
73 ~ 84	P13 ~ P2	O	FL segment driver output.
85	$\overline{\text{O-KSCAN}}$	O	Key scan driver control.
86	TRAY CLOSE`	O	CD tray control close.
87	TRAY OPEN	O	CD tray control open.
88	DISH-FWD	O	CD dish control forward.
89	VSS2	–	GND.
90	VDD2	–	5V supply.
91	$\overline{\text{O-MOTOR}}$	O	Deck motor control.
92	$\overline{\text{SOL1}}$	O	Deck plunger conotrol.
93	O-MUTE	O	System mute control.
94	O-POWER	O	System power control.
95	DISH-REV	O	CD dish control reverse.
96	O-CDCLK	O	Clock for CD.
97	I-STEREO / I-DRF	I	Stereo detect input / CD DRF input.
98	O-DATA	O	Data output for CD.
99	I-IFC / I-SUBQ	I	IF count input / CD SUB-Q input.
100	O-CDCE	O	CD chip enable output.

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XIN</td><td>I</td><td rowspan="2">A crystal oscillator (4.5MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>XOUT</td><td>O</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (LC87F65C8A) when relevant key is operated.
Active "H".</td></tr>
<tr><td>5</td><td>CL</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (LC87F65C8A).</td></tr>
<tr><td>7</td><td>T-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when MONO / BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / $\overline{\text{SW}}$</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$ / SW</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IF-IN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>15</td><td>AMIN</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>FMIN</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>AIN</td><td>I</td><td rowspan="2">The MOS transistor used for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>AOUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

ADJUSTMENT – 1 <DECK / FRONT>

< DECK SECTION >

1. Tape Speed Adjustment
   Settings : • Test tape : TTA–100
   • Test point : TP3 (Lch), TP4 (Rch)
   • Adjustment location : SFR1
   Method : Play back the test tape and adjust SFR1 so that the test point becomes 3000Hz ± 5Hz (FWD) and FWD SPEED ± 45Hz (REV).

2. Head Azimuth Adjustment
   Settings : • Test tape : TTA–330
   • Test point : TP3 (Lch), TP4 (Rch)
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD and REV PLAY mode.

3. PB Frequency Response Check
   Settings : • Test tape : TTA–330
   • Test point : TP3 (Lch), TP4 (Rch)
   Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is 0dB ± 3dB.

4. PB Sensitivity Adjustment
   Settings : • Test tape : TTA–200
   • Test point : TP3 (Lch), TP4 (Rch)
   • Adjustment location : SFR303 (Lch)
   SFR304 (Rch)
   Method : Play back the 400Hz signal of the test tape and adjust SFRs so that the output level at TP3, TP4 is 245mV ± 10 mV.

5. REC/PB Frequency Response Adjustment
   Settings : • Test tape : TTA–602 (NORMAL)
   • Test point : TP3 (Lch), TP4 (Rch)
   • Input signal : 1kHz/10kHz (–20VU)
   • Adjustment location : SFR351 (Lch)
   SFR352 (Rch)
   Method : Apply a 1kHz signal and REC mode.
   Then adjust OSC attenuator so that the output level at the TP3, TP4 becomes 17mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output level of the 10kHz signal becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

6. REC/PB Sensitivity Adjustment
   Settings : • Test tape : TTA–602 (NORMAL)
   • Test point : TP3 (Lch), TP4 (Rch)
   • Input signal : 1kHz (0VU)
   • Adjustment location : SFR305 (Lch)
   SFR306 (Rch)
   Method : Apply a 1kHz signal and REC mode.
   Then adjust OSC attenuator so that the output level at the TP3, TP4 becomes 170mV.Record and play back the 1kHz signal and adjust SFRs so that the output level is 0dB ± 0.5dB.

< FRONT SECTION >

7. μ-con Clock Adjustment
   Settings : • Test point : TP10 (K-SCAN)
   TP11 (GND)
   • Adjustment location : L101
   Method : Insert AC plug while pressing the TUNER function key and POWER key.
   Connect a frequency counter across TP10 and TP11.
   Then adjust L101 so that the test point becomes 167.06Hz ± 0.17Hz.

ADJUSTMENT – 2 <TUNER>

< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : L981 (1/3)
   Method : Set to MW 999kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V.
   Then set to LW 290kHz and check that the test point is less than 8.0V.

5. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

6. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L772 ..... 450kHz

7. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

8. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBµV.

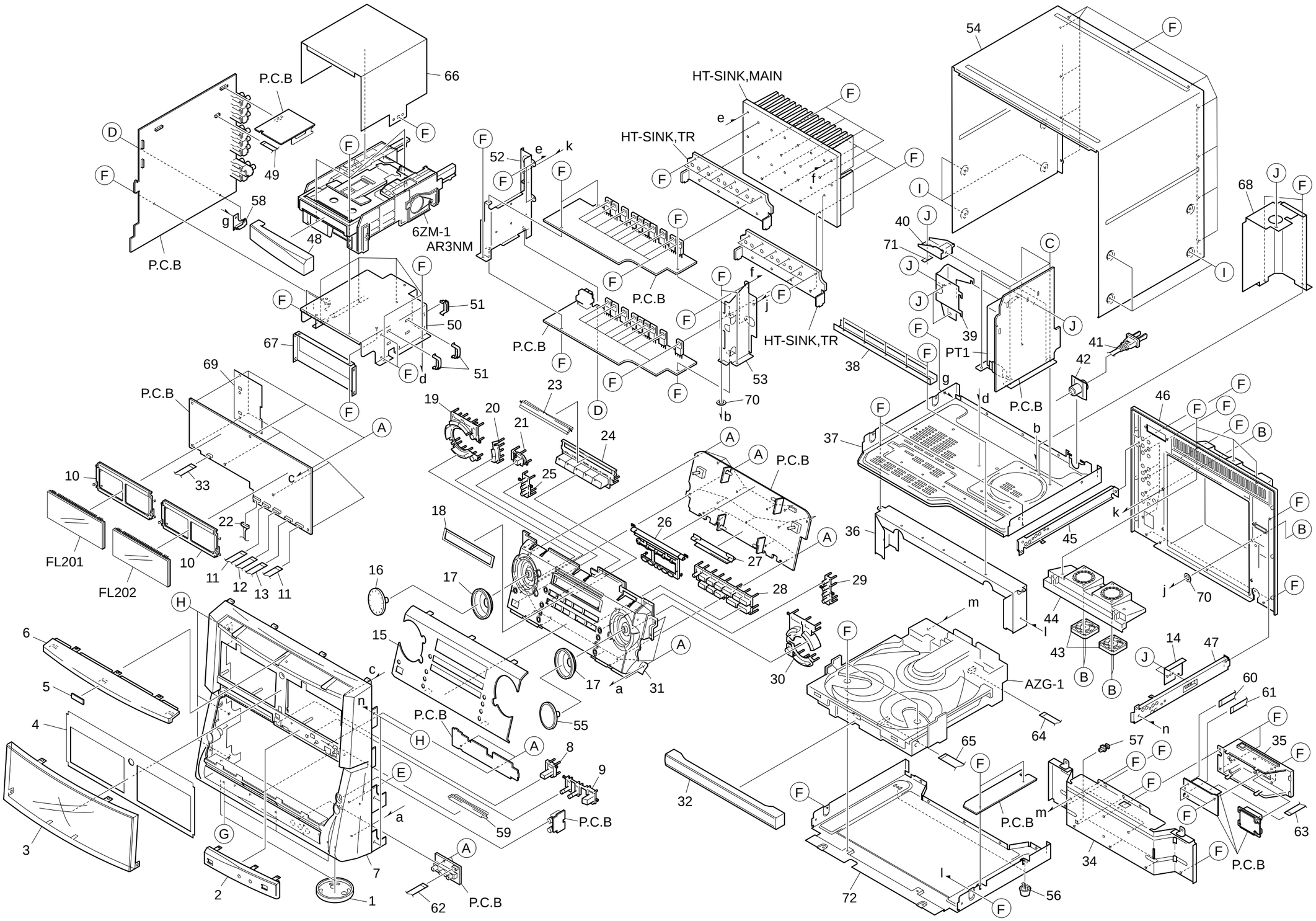
9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3,TP4 (DC balance)
   • Adjustment location : L771
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

10. Output Level Check
    <MW>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 74dBµV
    Method : Set to MW 999kHz and check that the test point is 130mV ± 3dB.

    <FM>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBµV
    Method : Set to FM 98.0MHz and check that the test point is 520mV ± 3dB.

11. FM Separation Check
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBµV
    Method : Set to FM 98.0MHz and check that the test point is more than 12dB.

MECHANICAL EXPLODED VIEW 1 / 1



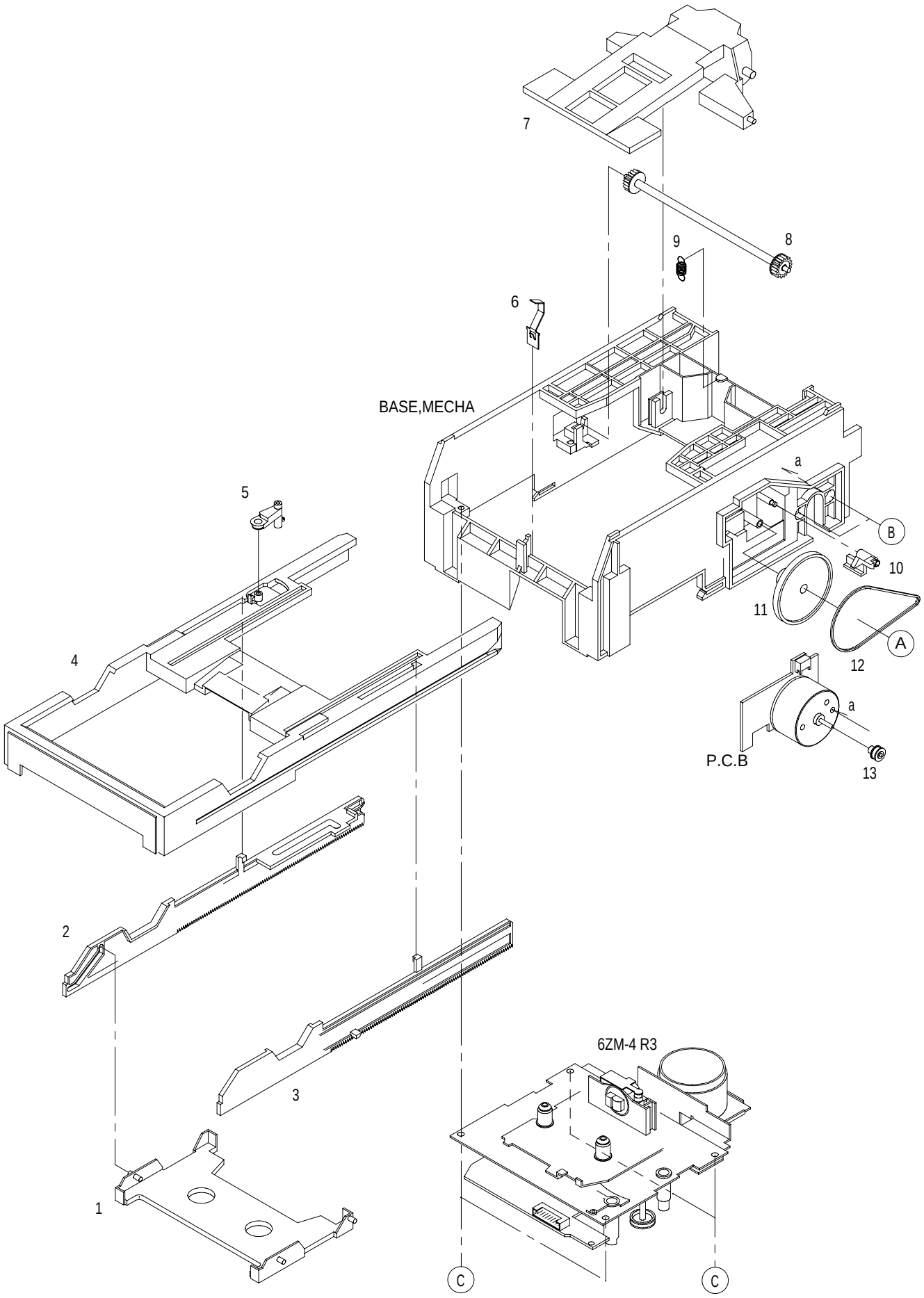
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NF3-090-010		RING,FOOT
2	8A-MTM-043-010		PANEL,DOLBY
3	8A-MTM-068-010		WINDOW,AMP (RDS)
4	8A-MTM-038-110		PLATE,FL
5	87-B00-002-010		BADGE,AIWA 30 ABS SIL
6	8A-MTM-042-010		PANEL,WINDOW
7	8A-MTM-001-010		CABI,FR
8	8A-MTM-011-010		KEY,OPEN
9	8A-MTM-010-010		KEY,DOLBY
10	8Z-NF3-210-010		GUIDE,FL
11	88-913-301-110		FF-CABLE,13P-1.25
12	88-915-161-110		FF-CABLE, 15P 1.25
13	88-917-331-110		FF-CABLE,17P 1.25 330MM
14	8A-MTM-227-010		COVER,PWB PT
15	8A-MTM-054-010		PANEL,FR 2(21 EZ)
16	8A-MTM-032-010		KNOB,RTRY JOG
17	8A-MTM-029-010		RING,VOL
18	8A-MTM-033-010		PLATE,FUN
19	8A-MTM-013-010		KEY,ENTER
20	8A-MTM-014-010		KEY,RHYTHM
21	8A-MTM-069-010		KEY,ASSY POWER
22	8A-MTM-645-110		CONN ASSY,9P DECK-MECHA
23	8A-MTM-055-010		REFLECTOR,AMP
24	8A-MTM-070-010		KEY,ASSY FUN
25	8A-MTM-063-010		KEY,VF(3)
26	8A-MTM-212-010		GUIDE,PLAY
27	8A-MTM-214-110		GUIDE,REFLECTOR CD
28	8A-MTM-072-010		KEY,ASSY PLAY U
29	8A-MTM-019-010		KEY,VF
30	8A-MTM-020-010		KEY,BBE
31	8A-MTM-061-010		PANEL,FR (21 EZ)
32	8A-MTM-040-010		PANEL,TRAY CD
33	88-904-401-110		FF-CABLE,4P 1.25
34	8A-MTM-009-010		PANEL,REAR CD
35	8A-MTM-065-010		HLDR,PIN JACK (EZ)
36	8A-MTM-208-010		HLDR,CHAS A
37	8A-MTM-202-010		CHAS,MAIN
38	8A-MTM-209-010		HLDR,CHAS B
39	8A-MTM-220-010		HLDR,PWB PT-M
40	8A-MTM-219-010		HLDR,PWB PT-S
⚠ 41	8A-MTM-649-010		AC CORD ASSY,EKH BLK
42	88-NF9-210-010		BUSHING,CORD-E
43	87-A90-796-010		FAN,F614R-12MC-15-300MM
44	8A-MTM-052-010		HLDR,FAN
45	88-MA1-208-210		JOINT,CABI
46	8A-MTM-008-010		CABI,REAR EZ
47	8A-MTM-223-010		JOINT,CABI 2
48	8A-MTM-041-010		PANEL,TRAY DECK
49	88-906-701-110		FF-CABLE, 6P 1.25 700MM
50	8A-MTM-204-010		HLDR,DECK
51	87-NF4-221-010		HLDR,CABLE
52	8A-MTM-207-010		HLDR,HT-SINK B
53	8A-MTM-206-010		HLDR,HT-SINK A
54	8A-MTM-005-010		CABI,STEEL
55	8A-MTM-031-010		KNOB,RTRY VOL
56	87-MA3-062-010		FOOT, H17
57	84-ZG1-245-210		CAP,OPTICAL
58	8A-MTM-205-010		HLDR,PWB MAIN
59	8A-MTM-056-010		REFLECTOR,CD
60	88-915-751-110		FF-CABLE,15P 1.25 750MM
61	88-905-281-110		FF-CABLE, 5P 1.25 280MM
62	88-905-201-110		FF-CABLE, 5P 1.25
63	88-914-121-110		FF-CABLE, 14P 1.25
64	88-906-231-110		FF-CABLE, 6P 1.25 230MM
65	88-913-221-110		FF-CABLE, 13P 1.25 220MM
66	8A-MTM-224-010		PLATE,SHLD DECK
67	8A-MTM-228-010		HLDR,DECK 2
68	8A-MTM-225-010		PLATE,SHLD PT1
69	8A-MTM-229-010		PLATE,SHLD PWB FL
70	87-067-058-010		W-F 3.2-8-0.5 W/ADH
71	8A-MTM-231-010		PLATE PT
72	8A-MTM-201-010		CHAS,3CD
A	87-078-060-010		BVIT3PB+3-10
B	87-067-822-010		BVT2+3-20 W/O SLOT
C	87-078-191-010		S-SCREW,IT+4-10
D	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
E	81-MK1-210-010		S-SCREW,VFT2+3-16
F	87-067-703-010		TAPPING SCREW, BVT2+3-10
G	87-067-689-010		TAPPING SCREW, BVTT+3-8
H	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
I	87-067-761-010		TAPPING SCREW, BVT2+3-10
J	87-067-688-010		BVTT+3-6

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink

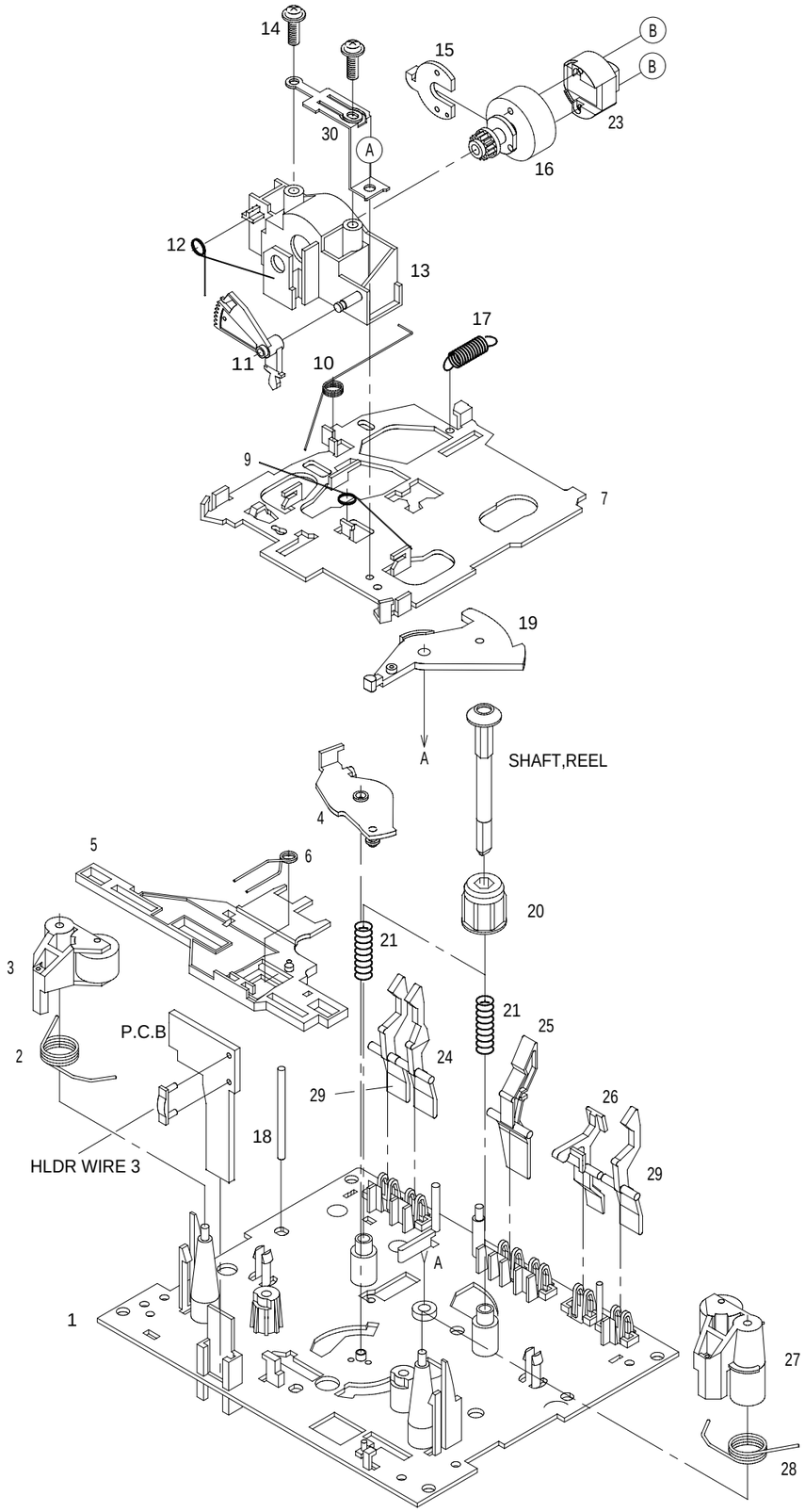
TAPE MECHANISM EXPLODED VIEW 1 / 2

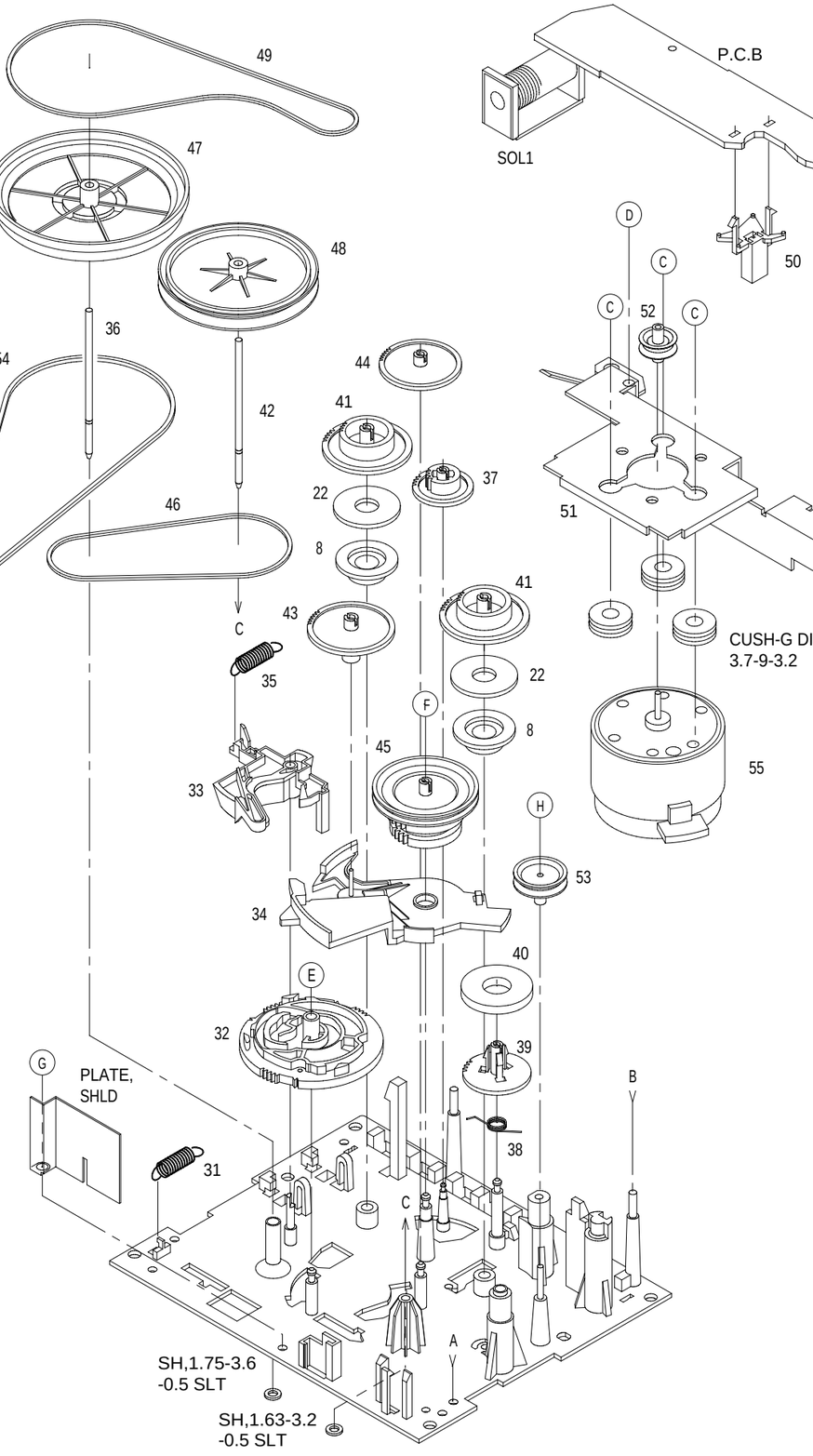


TAPE MECHANISM PARTS LIST 1 / 2

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZL1-203-010		TRAY,CAS
2	86-ZL1-204-010		LEVER,SLIDE L
3	86-ZL1-205-010		LEVER,SLIDE R
4	86-ZL1-202-010		FRAME,CAS
5	86-ZL1-209-010		LEVER,LOCK
6	86-ZL1-214-010		SPR-P,CAS
7	86-ZL1-211-010		ARM,CLAMP
8	86-ZL1-206-010		GEAR,TRAY
9	86-ZL1-213-010		SPR-E,CLAMP
10	86-ZL1-208-010		LEVER,SW
11	86-ZL1-207-010		GEAR,PULLEY
12	86-ZL1-212-010		BELT,L
13	86-ZL1-210-010		PULLEY,MOT
A	83-ZG3-217-010		S-SCREW,GEAR D
B	87-251-072-410		U+2.6-5
C	87-067-660-010		BVT2+3-8 W/0 SL0T BLK

TAPE MECHANISM EXPLODED VIEW 2 / 2





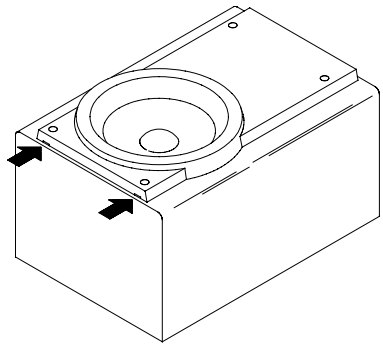
TAPE MECHANISM PARTS LIST 2 / 2

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZM1-218-010		CHAS ASSY,R
2	82-ZM1-258-110		SPR-T,PINCH L
3	86-ZM4-202-019		LVR ASSY,PINCH L3
4	82-ZM1-333-010		PLATE,LINK2
5	82-ZM1-266-110		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-910		CHAS,HEAD
8	86-ZM1-219-010		CLR,REEL SLIP
9	82-ZM1-269-210		SPR-T,BRG
10	82-ZM3-323-010		SPR-T,LINK 3
11	82-ZM1-210-110		GEAR,H T
12	82-ZM1-213-010		SPR-T,HEAD
13	82-ZM1-207-710		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-110		PLATE,HEAD
16	82-ZM1-208-310		HLDR,HEAD
17	82-ZM1-218-010		SPR-E,HB
18	82-ZM3-327-010		SHAFT,COUPLER N2
19	82-ZM1-222-210		LVR,PLAY
20	86-ZM1-203-010		CAP,REEL
21	86-ZM1-221-010		SPR-C,BT 2L
22	86-ZM1-220-010		FELT,DIA 5.3-14-0.8
23	87-046-399-110		HEAD,RPH YK56R-BS409
24	82-ZM1-241-310		LVR,MC
25	82-ZM1-242-010		LVR,CAS
26	82-ZM1-243-010		LVR,STOP
27	86-ZM4-204-019		LVR ASSY,PINCH R3
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-110		LVR,REC
30	82-ZM1-298-010		SPR-P EARTH
31	82-ZM1-255-310		SPR-E,LVR DIR
32	82-ZM1-221-110		GEAR,CAM
33	82-ZM1-227-210		LVR,TRIG
34	82-ZM1-224-410		LVR,FR
35	86-ZM4-201-010		SPR-E,TRIG 3
36	82-ZM1-239-010		CAPSTAN,2.2-41.7
37	82-ZM1-223-010		GEAR,PLAY
38	82-ZM1-322-010		SPR-T,FR 60
39	82-ZM1-220-210		GEAR,IDLER
40	82-ZM1-316-010		RING,MAGNET 3
41	82-ZM1-216-310		GEAR,REEL
42	82-ZM1-236-010		CAPSTAN,2-41.5
43	82-ZM1-225-210		GEAR,FR
44	82-ZM1-226-010		GEAR,REW
45	82-ZM3-333-210		SLIP DISK ASSY 2
46	82-ZM1-338-110		BELT,FR 4
47	86-ZM1-216-210		FLY-WHL,R L
48	82-ZM3-330-010		FLY-WHL,L2 W
49	86-ZM1-206-010		BELT,MAIN L
50	82-ZM1-245-210		HLDR,IC
51	86-ZM1-215-010		HLDR,MOT L
52	82-ZM1-247-210		PULLEY,MOTOR
53	82-ZM3-335-010		PULLEY,COUPLER M3
54	86-ZM1-217-010		BELT,MOT
55	87-A90-343-010		MOT,SHU2R 70
A	82-ZM1-315-010		S-SCREW GUIDE TAPE
B	80-ZM6-207-010		V+1.6-7
C	82-ZM3-318-110		S-SCREW MOTOR M2
D	87-067-178-010		VTT+2.6-3
E	87-B10-008-010		W-P,2.08-8-0.4 SLIT
F	82-ZM3-334-010		PW,2.16-6-0.4
G	87-571-032-410		VIT+2-3
H	87-B10-043-010		W-P,0.99-4-0.25 SLT

SPEAKER DISASSEMBLY INSTRUCTIONS

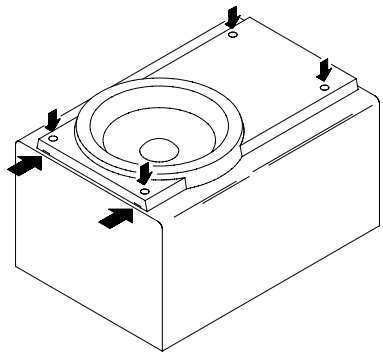
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



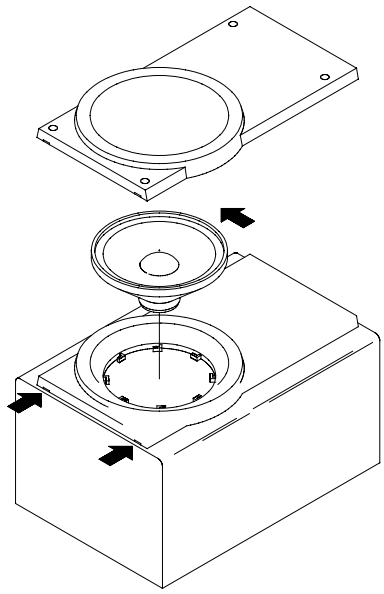
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

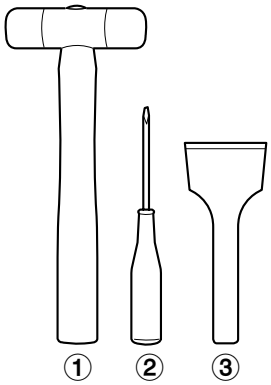


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

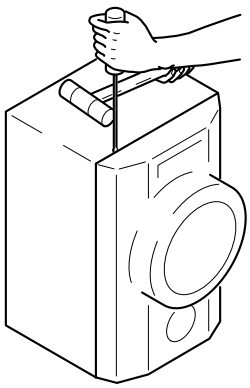


Fig-1

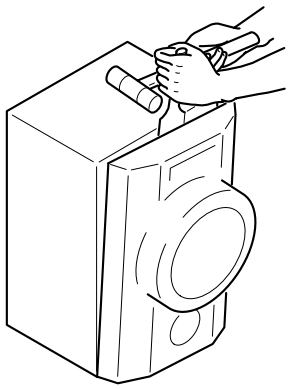


Fig-2

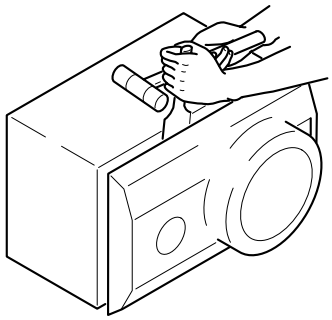


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST (SX–WA1000) <YSL>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MS1-001-010		PANEL,FR
2	8A-MS1-004-010		PANEL,TW
3	8A-MS1-005-010		PANEL,DUCT
4	8A-MS1-006-010		GRILLE,FRAME ASSY
5	8A-MS1-602-010		SPKR,W 200
6	8A-MS1-603-010		SPKR,W 160
7	88-NS5-605-110		SPKR,T 60
8	88-MS1-608-010		SPKR,CERAMIC
9	88-NS5-611-010		CORD,SPKR B/L
10	88-MS1-610-010		CORD,SPKR

SPEAKER PARTS LIST (SX–CR1800) <YSC>

NOTE: This SX-CR1800 Speaker contains SX-C1800 (Center Speaker) and SX-R1800 (Rear Speaker)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-AS4-602-010		SPKR,100<C1800>
1	8A-AS5-601-010		SPKR,100<R1800>
2	8A-AS4-005-010		TERMINAL,ASSY<C1800>
2	8A-AS5-005-010		TERMINAL,ASSY<R1800>
3	8A-AS4-001-010		GRILLE,FRAME ASSY<C1800>
3	8A-AS5-001-010		GRILLE,FRAME ASSY<R1800>

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MTM-905-010		IB,K(E)M<K>
1	8A-MTM-906-010		IB,EZ(9L)M<EZ>
2	87-043-106-010		ANT,FM 1007AWG
3	87-A90-030-010		ANT,LOOP AM-NC C
4	8A-MTM-701-010		RC UNIT,RC-AAS01

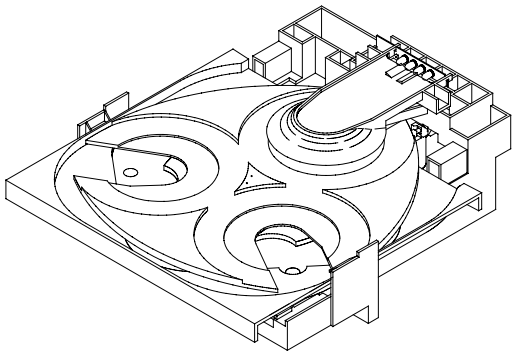
アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111

9620450 0251431 Printed in Singapore

aiwa SERVICE

AZG-1

English



SERVICE MANUAL

CD-R/RW MECHANISM

BASIC CD MECHANISM:KSM-880CAB

TYPE
ZD8RD
YZD8RMDJM
ZD8RMDJM
ZD8RDNDM
YKZD8RDF
ZD8RDM
YZD8RDM
ZD8RN1DM
YZD8RDJM

aiwa

S/M Code No. 09-001-335-3N6

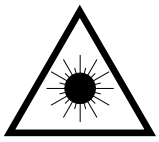
DATA

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

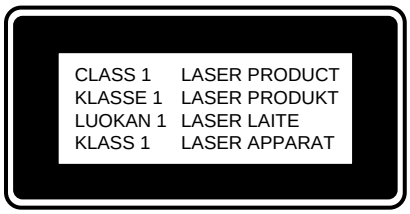
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

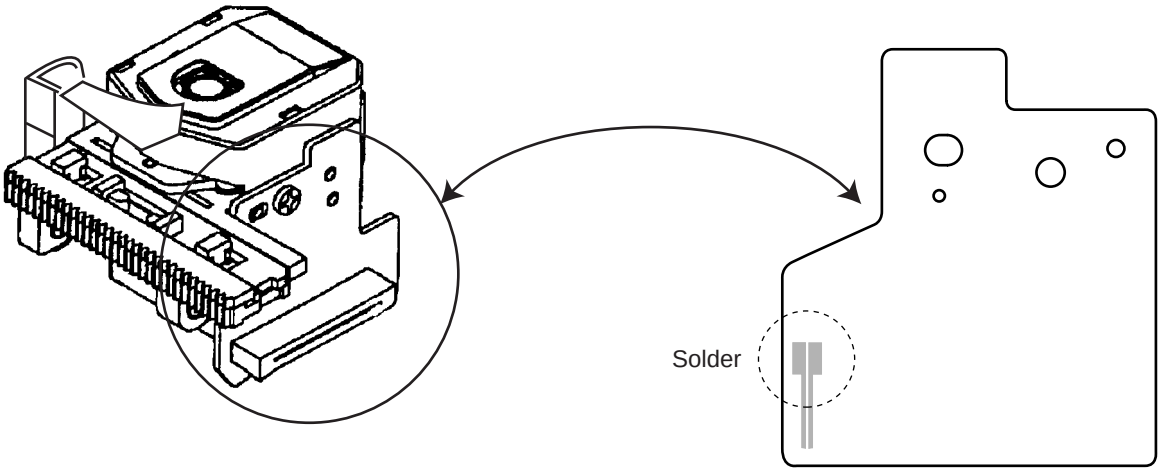
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

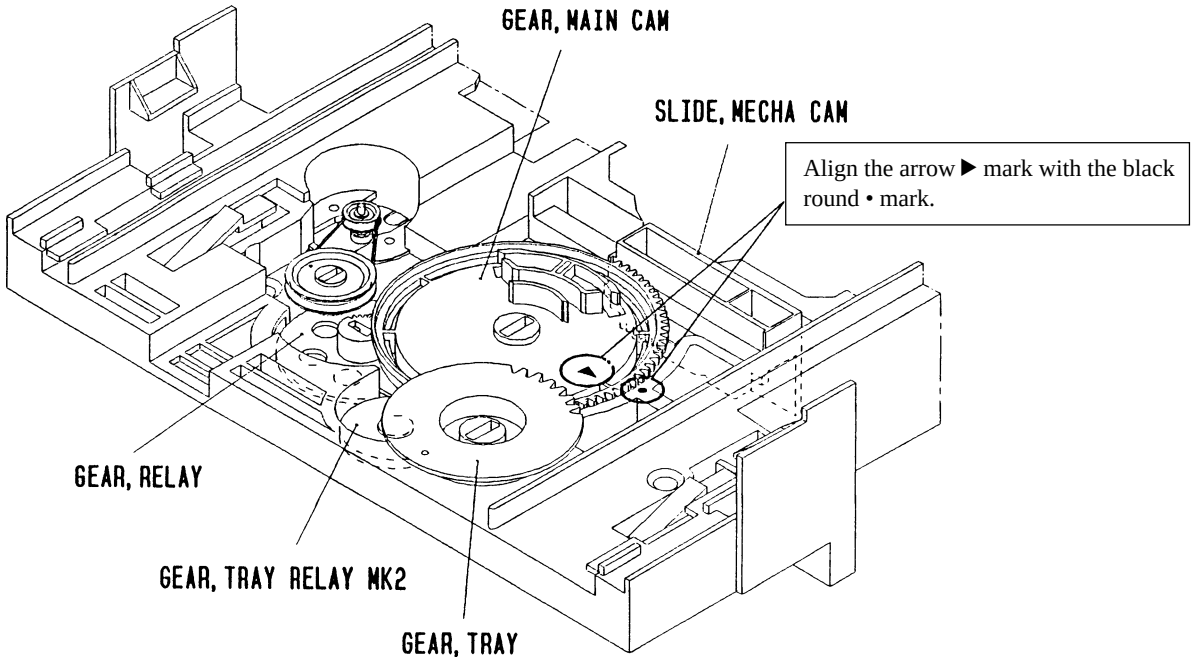
1) After the connection, remove solder shown in the figure below.



How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

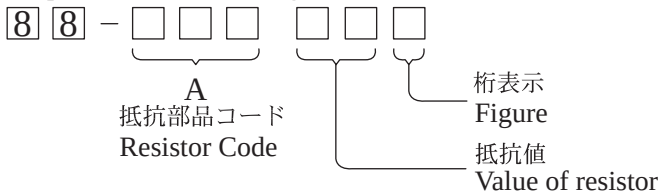
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-381-040		C-IC,LA9235M
	87-A21-556-010		C-IC,LC78641E
	87-A21-414-010		IC,BA5927S
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-497-080		TR,2SA1980Y/G
	87-A30-087-080		C-FET,2SK2158
	87-026-237-080		CHIP-TR,DTC124XK <EXCEPT ZD8RN1DM,YZD8RDM>
	87-A30-075-080		C-TR,2SA1235F
DIODE			
	87-A40-270-080		C-DIODE,MC2838
	87-070-136-080		ZENER,MTZJ5.1B
	87-A40-003-080		ZENER,MTZJ4.3A
	87-A40-337-080		ZENER,MTZJ6.8B
	87-A40-313-080		C-DIODE,MC2840
3CD C.B			
C1	87-010-374-080		CAP,E 47-10
C2	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C2	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C3	87-010-260-080		CAP, ELECT 47-25V
C4	87-010-260-080		CAP, ELECT 47-25V
C5	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C5	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C6	87-010-405-080		CAP, ELECT 10-50V
C7	87-010-263-080		CAP, ELECT 100-10V
C8	87-012-349-080		C-CAP,S 1000P-50 CH
C10	87-010-546-080		CAP,E 0.33-50
C11	87-010-401-080		CAP, ELECT 1-50V
C13	87-010-321-020		C-CAP,S 82P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C13	87-010-321-080		C-CAP,S 82P-50 J CH <YKZD88RDF,ZD8RD>
C15	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C15	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C16	87-010-260-080		CAP, ELECT 47-25V
C101	87-010-992-080		C-CAP,S 0.047-25 B
C102	87-010-401-080		CAP, ELECT 1-50V
C103	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C103	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C104	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C104	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C105	87-010-260-080		CAP, ELECT 47-25V
C106	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C106	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C107	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C107	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C108	87-010-186-080		CAP,CHIP 4700P<YKZD88RDF,ZD8RD>
C108	87-010-186-020		CAP,CHIP 4700P <EXCEPT YKZD88RDF,ZD8RD>
C109	87-010-992-080		C-CAP,S 0.047-25 B
C110	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C110	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C112	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C114	87-010-260-080		CAP, ELECT 47-25V
C115	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C115	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C116	87-010-260-080		CAP, ELECT 47-25V
C117	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C117	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C118	87-010-260-080		CAP, ELECT 47-25V
C119	87-015-819-080		
C120	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C120	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C122	87-010-404-080		CAP, ELECT 4.7-50V
C123	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C123	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C124	87-010-401-080		CAP, ELECT 1-50V
C126	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C126	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C128	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C128	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C132	87-010-405-080		CAP, ELECT 10-50V
C133	87-010-314-020		C-CAP,S 22P-50V <EXCEPT YKZD88RDF,ZD8RD>
C133	87-010-314-080		C-CAP,S 22P-50V<YKZD88RDF,ZD8RD>
C135	87-A11-088-080		CAP,TC U 100P-50 J CH
C151	87-010-405-080		CAP, ELECT 10-50V
C152	87-010-405-080		CAP, ELECT 10-50V
C192	87-012-349-080		C-CAP,S 1000P-50 CH
C193	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C193	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C201	87-A10-730-080		CAP,E 1000-16 SMG
C202	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C202	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C205	87-010-405-080		CAP, ELECT 10-50V
C206	87-010-405-080		CAP, ELECT 10-50V
C207	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C207	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C301	87-010-382-080		CAP, ELECT 22-25V
C302	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C302	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C303	87-010-260-080		CAP, ELECT 47-25V
C401	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C401	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C402	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C402	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C403	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C403	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C406	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C406	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C407	87-010-405-080		CAP, ELECT 10-50V
C454	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C454	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C601	87-010-260-080		CAP, ELECT 47-25V
C602	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C602	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
CN1	87-A60-429-010		CONN,16P H TOC-A
CN201	84-ZG1-648-010		CONN ASSY,6P
CN202	87-A60-130-010		CONN,5P V
CN501	84-ZG1-647-010		CONN ASSY,2P <EXCEPT ZD8RN1DM,ZD8RNDM>
CN601	87-009-345-010		CONN,2P PH V <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
CON401	87-099-030-010		CONN,13P 6216H
FB601	87-008-372-080		FLTR,EMI BL01 RN1 <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
FB602	87-008-372-080		FLTR,EMI BL01 RN1
LED601	87-A40-558-010		LED,SLZ-8128A-01-A
M201	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
SW201	87-036-109-010		SW,MICRO SPPB61
SW202	87-036-109-010		SW,MICRO SPPB61
X101	87-A70-046-010		VIB,XTAL 16.934MHZ
LED. C.B			
LED501	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED502	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED503	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED504	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>
T-T C.B			
C401	87-018-214-080		CAP TC U 0.1-50F
CON401	86-NFZ-675-010		CONN,5P H 6216-11H
M401	87-045-364-010		MOTOR(BCH3B14)
PS401	87-026-573-010		SNSR,PHOTO GP1S53V
MOTOR C.B			
PIN3	91-564-722-110		CONN,PIN 6P
SW1	91-572-085-110		LEAF SWITCH

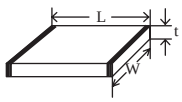
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

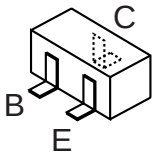
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

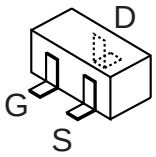
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

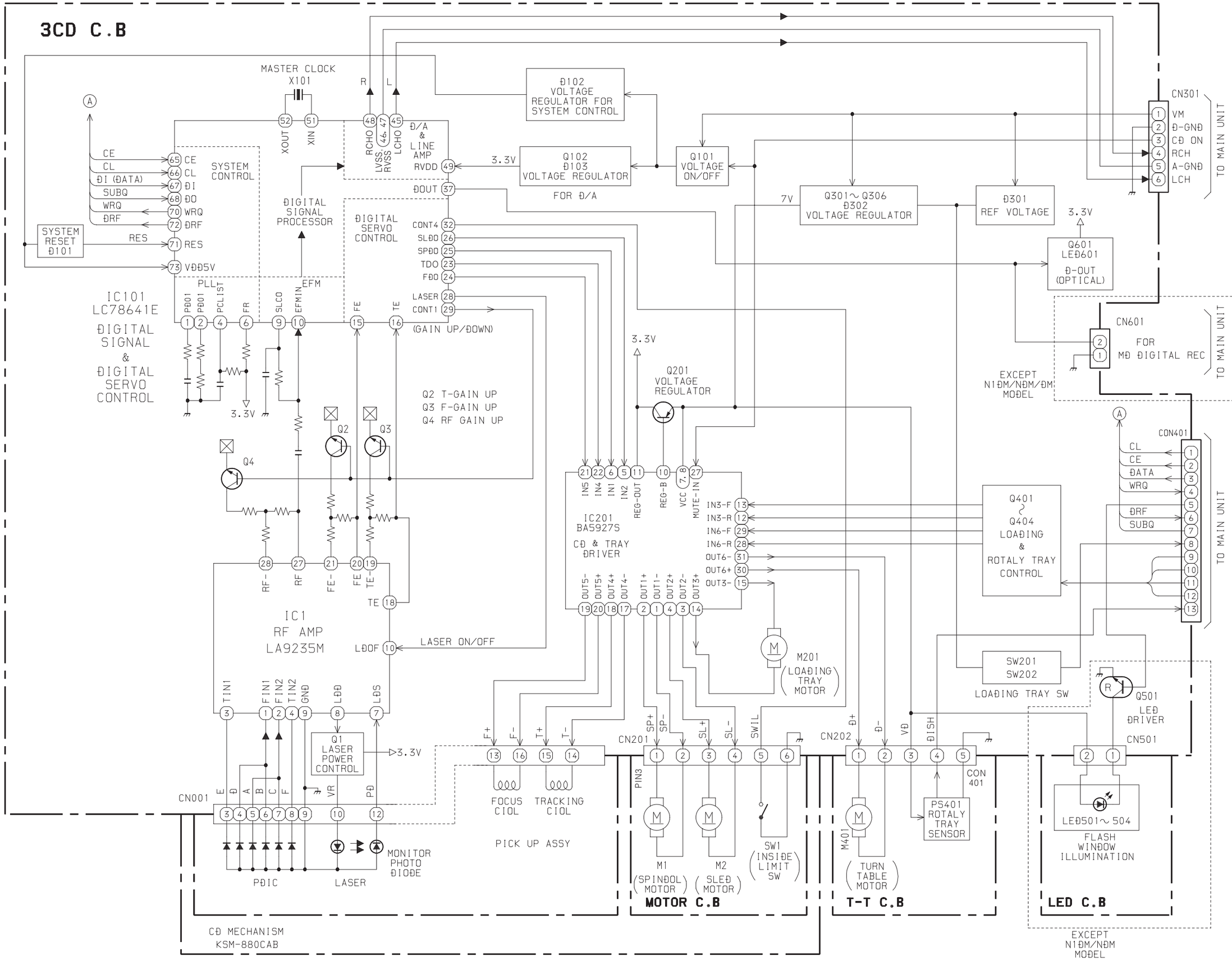


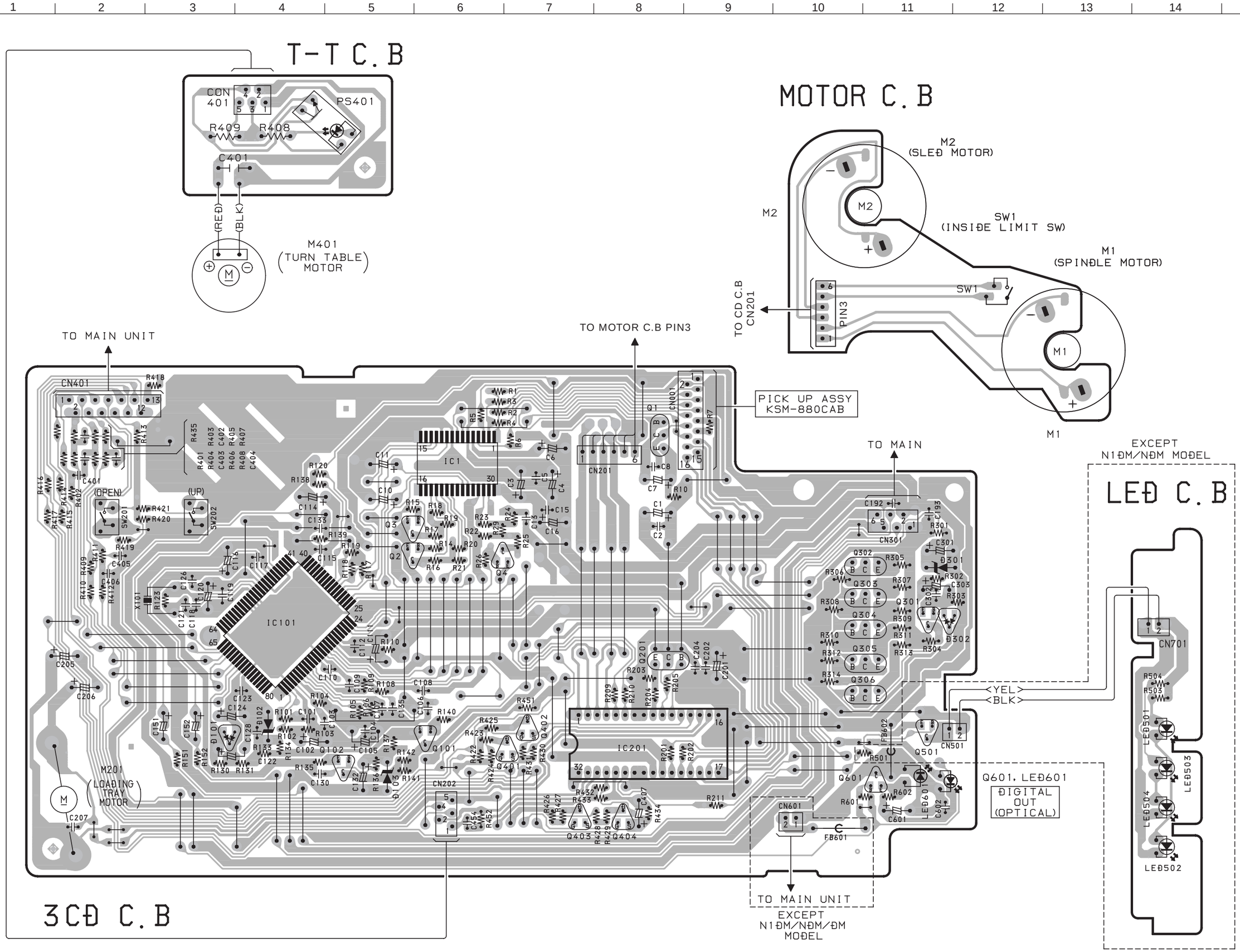
2SA1235F
2SC3052F
DTC124XK

2SA1980Y/G
KTA1266GR

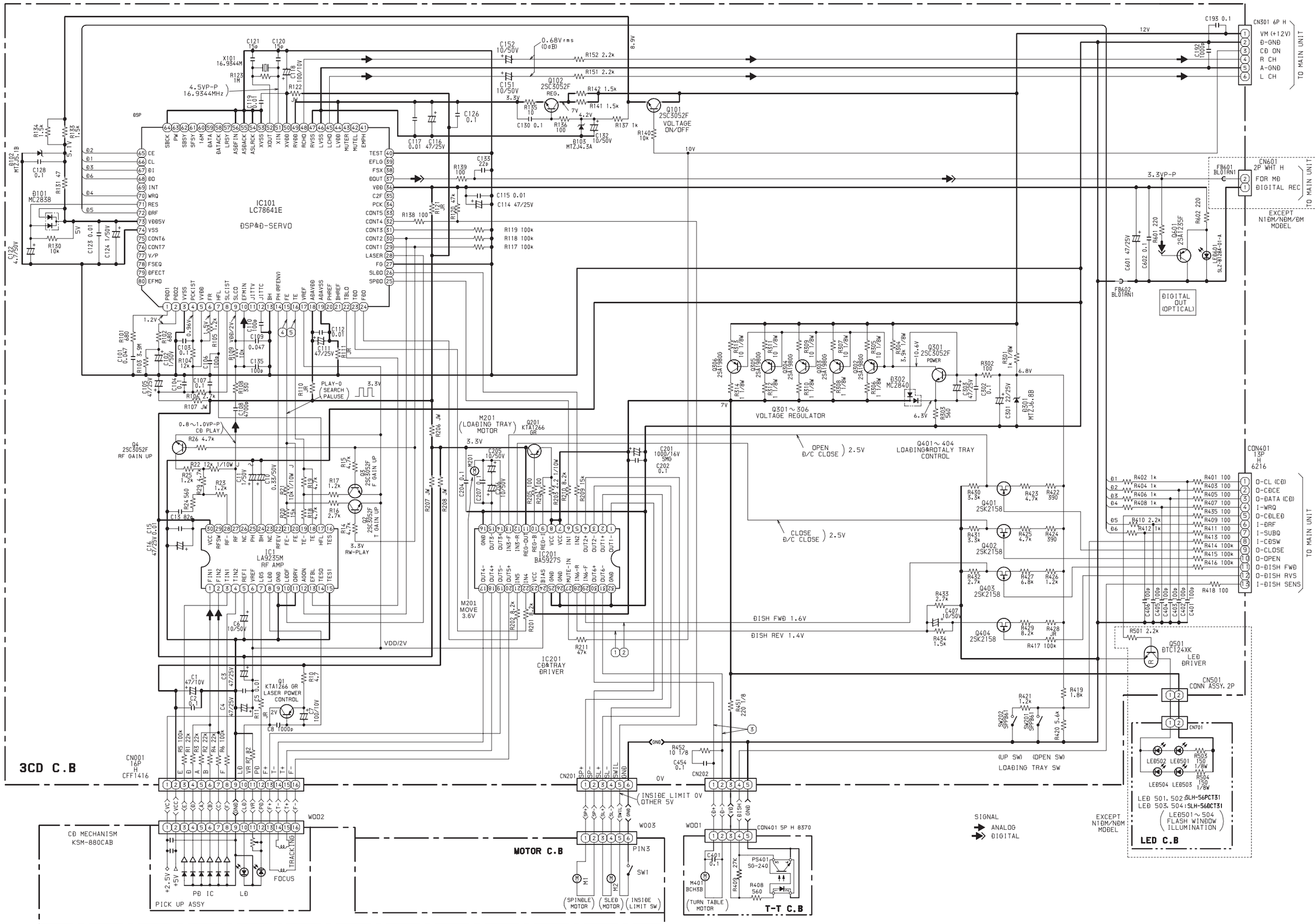


2SK2158


3CD C.B
MASTER CLOCK
X101
XOUT
XIN
R
L
RCHO
LVSS
RVSS
LCHO
Đ/A & LINE AMP
Đ102 VOLTAGE REGULATOR FOR SYSTEM CONTROL
Q102 Đ103 VOLTAGE REGULATOR
FOR Đ/A
Q101 VOLTAGE ON/OFF
3.3V
RVDD
ĐOUT
CE
CL
Đ I (ĐATA)
SUBQ
WRQ
ĐRF
RES
VĐĐ5V
SYSTEM CONTROL
SYSTEM RESET Đ101
ĐIGITAL SIGNAL PROCESSOR
ĐIGITAL SERVO CONTROL
CONT4
SLĐO
SPĐO
TDO
FĐO
LASER
CONT1
(GAIN UP/ĐOWN)
PLL
EFM
IC101
LC78641E
ĐIGITAL SIGNAL & ĐIGITAL SERVO CONTROL
PĐO1
PDO1
PCLIST
FR
SLCO
EFMIN
FE
TE
Q2 T-GAIN UP
Q3 F-GAIN UP
Q4 RF GAIN UP
Q2
Q3
Q4
Q201 VOLTAGE REGULATOR
7V
Q301~Q306 Đ302 VOLTAGE REGULATOR
Đ301 REF VOLTAGE
Q601 LEĐ601 Đ-OUT (OPTICAL)
CN301
VM
Đ-GNĐ
CĐ ON
RCH
A-GNĐ
LCH
TO MAIN UNIT
CN601
FOR MĐ ĐIGITAL REC
EXCEPT N1ĐM/NĐM/ĐM MOĐEL
CON401
CL
CE
ĐATA
WRQ
ĐRF
SUBQ
IC201
BA5927S
CĐ & TRAY ĐRIVER
IN5
IN4
IN1
IN2
REG-O
REG-B
VCC
MUTE-IN
IN3-F
IN3-R
IN6-F
IN6-R
OUT6-
OUT6+
OUT3-
OUT5-
OUT5+
OUT4+
OUT4-
OUT1+
OUT1-
OUT2+
OUT2-
OUT3+
Q401 ~ Q404 LOAĐING & ROTALY TRAY CONTROL
SW201 SW202
LOAĐING TRAY SW
M201 (LOAĐING TRAY MOTOR)
M
IC1
RF AMP
LA9235M
RF-
RF
FE-
FE
TE-
TE
LĐOF
LASER ON/OFF
TIN1
FIN1
FIN2
TIN2
GND
LĐĐ
LĐS
Q1 LASER POWER CONTROL
VR
PĐ
CN001
E
Đ
A
B
C
F
PĐIC
LASER
MONITOR PHOTO ĐIOĐE
F+
F-
T+
T-
FOCUS CIOL
TRACKING CIOL
PICK UP ASSY
CN201
SP+
SP-
SL+
SL-
SWIL
PIN3
M1 (SPINĐOL MOTOR)
M2 (SLEĐ MOTOR)
SW1 (INSIĐE LIMIT SW)
MOTOR C.B
CN202
Đ+
Đ-
VĐ
ĐISH
M401
TURN TABLE MOTOR
PS401 ROTALY TRAY SENSOR
CON 401
T-T C.B
Q501 LEĐ ĐRIVER
CN501
LEĐ501~504
FLASH WINĐOW ILLUMINATION
LED C.B
EXCEPT N1ĐM/NĐM MOĐEL
CĐ MECHANISM KSM-880CAB


T-T C.B
CON 401
PS401
R409
R408
C401
(RED)
(BLK)
M401
(TURN TABLE MOTOR)
MOTOR C.B
M2
(SLED MOTOR)
M2
SW1
(INSIDE LIMIT SW)
M1
(SPINDLE MOTOR)
SW1
PIN3
TO CD C.B
CN201
M1
TO MAIN UNIT
TO MOTOR C.B PIN3
PICK UP ASSY
KSM-880CAB
TO MAIN
EXCEPT
N1DM/NDM MODEL
LED C.B
CN401
R418
(OPEN)
(UP)
SW201
SW202
M201
(LOADING TRAY MOTOR)
IC1
IC101
IC201
CN201
CN001
CN202
CN601
CN301
CN501
CN701
Q1
Q2
Q3
Q4
Q101
Q102
Q201
Q301
Q302
Q303
Q304
Q305
Q306
Q401
Q402
Q403
Q404
Q501
Q601
FB601
FB602
X101
D101
D102
D301
D302
LED501
LED502
LED503
LED504
LED601
<YEL>
<BLK>
Q601, LED601
DIGITAL OUT (OPTICAL)
TO MAIN UNIT
EXCEPT
N1DM/NDM/DM
MODEL
3CD C.B

SCHEMATIC DIAGRAM



TEST MODE

1. How to Start the CD Test Mode

While pressing the CD function key, connect the AC power plug to wall outlet.
The test mode starts up and “CD TEST” appears on the display.

2. How to Exit the CD Test Mode

Press the POWER button or disconnect the AC power plug from wall outlet.
* When any function key other than PLAY is pressed during playback, the test mode is canceled.

3. Function and Use of the CD Test Mode

NO	MODE	How to enter the mode	Display	Operation	Check item
1	Start mode		All indicators turn on	• All FL all ndicators turn on	• FL check • Microprocessor check
2	Search mode	STOP button	CD	• LD turns on all the time • Focus search continuos operation *1 • Spindle motor continuos kick	• APC circuit check • Laser current measurement • Focus search waveform check • Focus error waveform check (Ignores DRF during search mode)
3	Play mode	PLAY button	Normal	• Normal playback • Focus search is continued if failed in TOC READ.	• Each servo circuit is checked • DRF check
4	Traverse mode	PAUSE button	Normal	• Tracking servo OFF/ON Repeats OFF/ON every time the PAUSE button is pressed	• Tracking balance check
5	Sled mode	FF button	CD TEST	• Moves PU to inner circumference *2 Kicks the lens to inner circumference at the same time	• Sled circuit check • Tracking circuit check • Mechanism operation check • PU check
		RWD button	CD TEST	• Moves PU to outer circumference *2 Kicks the lens to outer circumference at the same time	
6	Spindle mode	TAPE REC button	All indicators turn on	• Pressing the button once rotates the spindle motor in the normal direction (rough speed). Pressing the button again rotates it in the reverse direction. Pressing it again stops the motor	• Spindle circuit check • Spindle motor check
7	RF AGC mode	TUNER button	AGC ON/OFF	• Repeats ON/OFF every time the TUNER button is pressed	• PU good or defective check • RF AMP circuit check

*1 ..... When the focus search keeps running for 10 minutes or longer continuously, the driver IC heats up, and the protective circuit works so that the machine may stops operating.
In this case, turn off the main power, wait for a while and restart the machine.

*2 ..... Do not keep pressing the FF or RWD button while the pickup is located at the innermost or outermost circumference because the gear can be damaged as the sled motor keeps rotating.

4. Automatic Adjustment Result Display

The automatic adjustment values of the focus and the tracking can be displayed.

4-1. Automatic Adjustment Result Display of Focus Offset Cancel/Gain

1) Enter the start mode (all indicators turn on).
2) Press the TAPE button to display “F**” and set each of the adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button.
5) The automatic adjustment value “F** **” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button twice to return to the play mode.

Adjustment item (ON = 1, OFF = 0)			Automatic adjustment value display (Asterisk * means hexadecimal display.)			
F	OFFSET	GAIN	F	OFFSET	—	GAIN
F	0	0	F	Not displayed	Not displayed	Not displayed
F	1	1	F	**	Not displayed	**
F	1	0	F	**	Not displayed	Not displayed
F	0	1	F	Not displayed	Not displayed	**

4-2. Automatic Adjustment Result Display of Tracking Offset Cancel/Balance/Gain

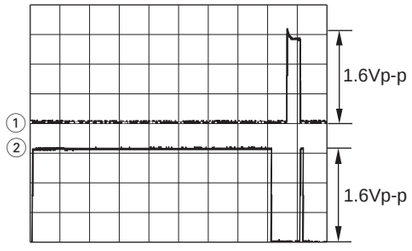
1) Enter the start mode (all indicators turn on).
2) Press the AUX button to display “T***” and set each adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button twice.
5) The automatic adjustment value “F******” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button to return to the play mode.

Adjustment item (ON = 1, OFF = 0)				Automatic adjustment value display (Asterisk * means hexadecimal display.)			
T	OFFSET	BALANCE	GAIN	T	OFFSET	BALANCE	GAIN
T	0	0	0	T	Not displayed	Not displayed	Not displayed
T	1	1	1	T	**	**	**
T	1	1	0	T	**	**	Not displayed
T	1	0	1	T	**	Not displayed	**
T	1	0	0	T	**	Not displayed	Not displayed
T	0	1	1	T	Not displayed	**	**
T	0	1	0	T	Not displayed	**	Not displayed
T	0	0	1	T	Not displayed	Not displayed	**

WAVE FORM

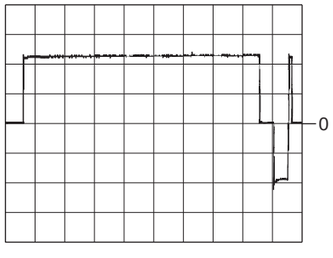
① IC201 ㉘ (IN6-R)
② IC201 ㉙ (IN6-F)

VOLT/DIV: 500mV
TIME/DIV: 200mS



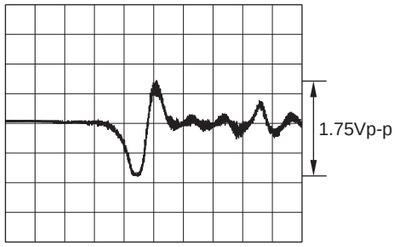
③ Between CN202 ① and ②
(② Pin: 0 Level)

VOLT/DIV: 1V
TIME/DIV: 200mS



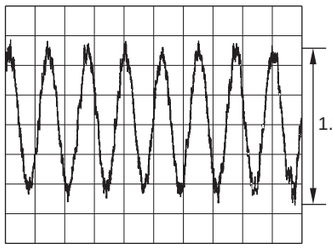
④ IC101 ⑮ (FE)

VOLT/DIV: 500mV
TIME/DIV: 2mS



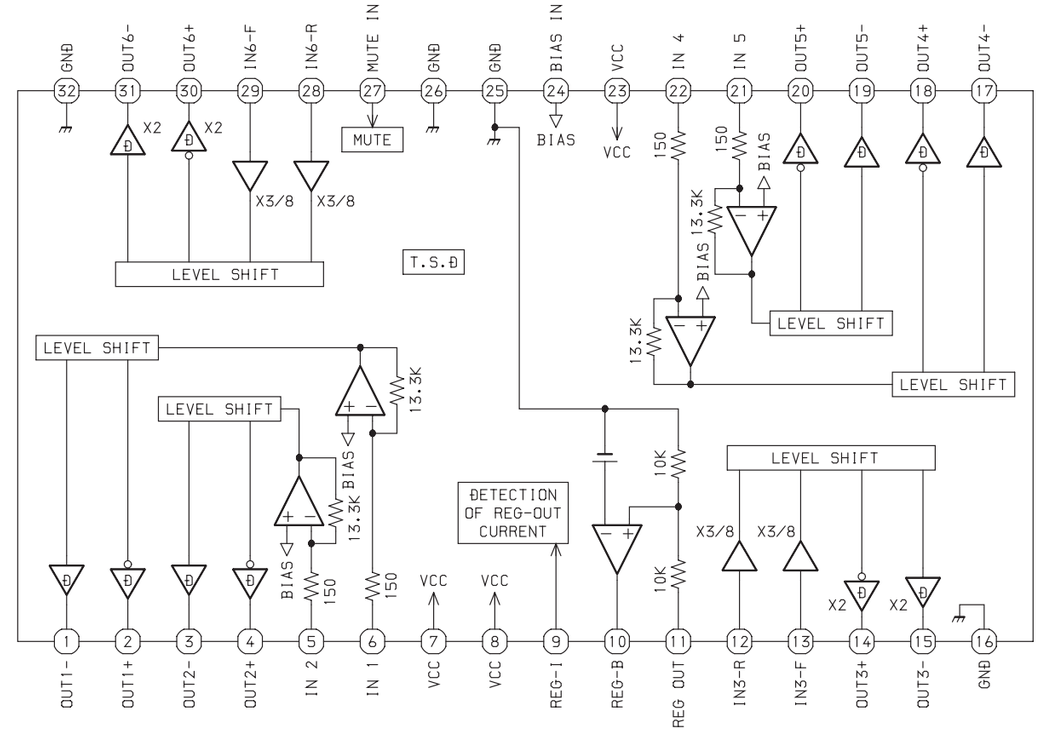
⑤ IC101 ⑯ (TE)

VOLT/DIV: 200mV
TIME/DIV: 200µS

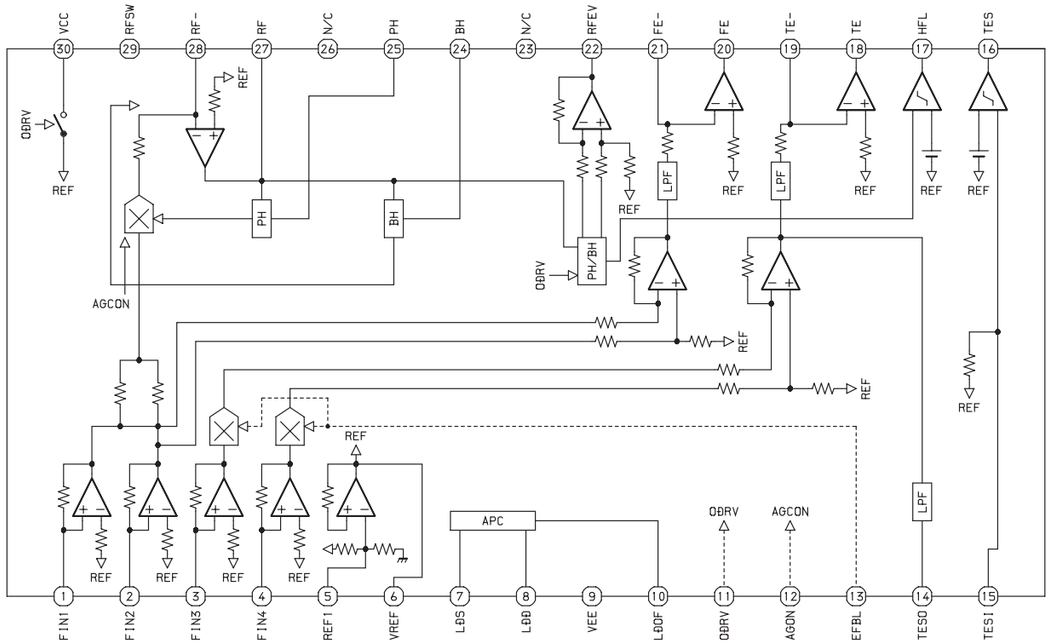


IC BLOCK DIAGRAM

IC, BA5927S



IC, LA9235M



IC DESCRIPTION

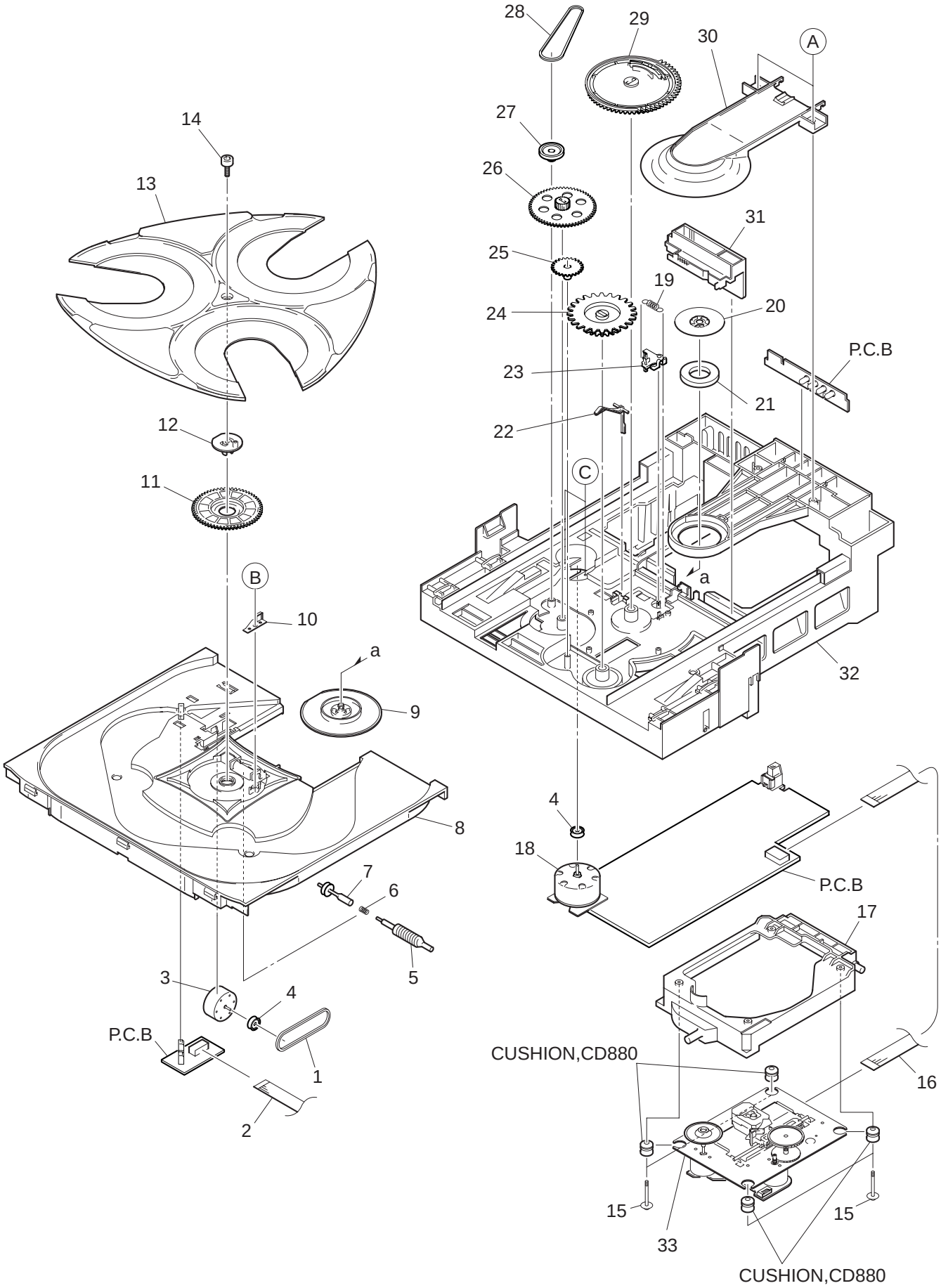
IC, LC78641E

Pin No.	Pin Name	I/O	Description
1	PDO1	O	Internal VCO control phase comparator output pin. (Pull down)
2	PDO2	O	Internal VCO control phase comparator output pin. OFF for rough servo, ON for phase servo. (Pull down)
3	VVSS	—	Internal VCO ground pin.
4	PCKIST	—	PDO output current adjustment resistor connection pin.
5	VVDD	—	Internal VCO power supply pin.
6	FR	—	VCO frequency range adjustment resistor connection pin. (Pull up)
7	HFL	I	Mirror detection signal input pin.
8	SLCIST	—	SLCO output current adjustment resistor connection pin.
9	SLCO	O	Control output.
10	EFMIN	I	EFM signal input pin.
11	JITTV	O	Jitter detection monitor pin.
12	JITTC	O	Jitter detection adjustment pin. (Pull down)
13	BH	I	BH signal input pin. (Connected to GND)
14	PH (RFENV)	I	PH signal or RFENV signal input pin.
15	FE	I	FE signal input pin.
16	TE	I	TE signal input pin.
17	VREF	I	VREF input pin.
18	ADAVDD	—	Servo A/D, D/A power supply pin.
19	ADAVSS	—	Servo A/D, D/A ground pin.
20	PHREF	O	PH reference output pin. (Not connected)
21	BHREF	O	BH reference output pin. (Not connected)
22	TBLO	O	Tracking balance output pin.
23	TDO	O	Tracking control output pin.
24	FDO	O	Focus control output pin.
25	SPDO	O	Spindle control output pin.
26	SLDO	O	Thread control output pin.
27	DVREF/FG	I/O	Output driver VREF output pin. FG signal input pin. (Connected to GND)
28	LASER	O	Laser ON/OFF control pin.
29	CONT1	I/O	General-purpose input/output pin 1. (Connected to GND)
30	CONT2	I/O	General-purpose input/output pin 2. (Connected to GND)
31	CONT3	I/O	General-purpose input/output pin 3. (Connected to GND)
32	CONT4	I/O	General-purpose input/output pin 4.
33	CONT5	I/O	General-purpose input/output pin 5. (Not connected)
34	PCK	O	EFM data playback clock monitor pin. Average 4.3218MHz when the phase is locked. (Not connected)
35	C2F	O	C2 flag output pin. (Not connected)
36	VDD	—	Digital power supply pin.
37	DOUT	O	Digital out output pin. (EIAJ format)
38	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not connected)

Pin No.	Pin Name	I/O	Description
39	EFLG	O	C1, C2 error correction monitor pin. (Not connected)
40	TEST	I	Test input pin. (Connected to GND)
41	EMPH	I/O	Emphasis pin. Which becomes an input pin after reset and can be controlled externally. This becomes an emphasis monitor pin under control by command. (Not connected)
42	MUTEL	O	L channel mute output pin. (Not connected)
43	MUTER	O	R channel mute output pin. (Not connected)
44	LVDD	—	L channel power supply pin.
45	LCHO	O	L channel output pin.
46	LVSS	—	L channel ground pin.
47	RVSS	—	R channel ground pin.
48	RCHO	O	R channel output pin.
49	RVDD	—	R channel power supply pin.
50	XVDD	—	Crystal oscillator power supply pin.
51	XIN	I	Connections for a 16.9344MHz crystal oscillator pin.
52	XOUT	O	
53	XVSS	—	Crystal oscillator ground pin.
54	ASLRCK	I	L/R clock input pin. (Connected to GND)
55	ASDACK	I	Bit clock input pin. (Connected to GND)
56	ASDFIN	I	L/R channel data input pin. (Connected to GND)
57	LRSY	O	L/R clock output pin. (Not connected)
58	DATACK	O	Bit clock output pin. (Not connected)
59	DATA	O	L/R channel data output pin. (Not connected)
60	16M	O	16.9344MHz output pin. (Not connected)
61	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode is in the standby state. (Not connected)
62	SBSY	O	Subcode clock synchronization signal output pin. (Not connected)
63	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not connected)
64	SBCK	I	Subcode readout clock input pin. (Connected to GND)
65	CE	I	Chip enable signal input pin.
66	CL	I	Data transfer clock input pin.
67	DI	I	Data input pin.
68	DO	O	Data output pin.
69	INT	O	Interruption signal output pin. (Not connected)
70	WRQ	O	Interruption signal output pin.
71	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.
72	DRF	O	Focus ON detect pin.
73	VDD5V	—	Microprocessor interface power supply.
74	VSS	—	Digital ground pin.
75	CONT6	I/O	General-purpose input/output pin 6.
76	CONT7	I/O	General-purpose input/output pin 7.
77	V/P	O	Rough servo/phase control automatic switching monitor output pin. “H” for rough servo and “L” for phase servo. (Not connected)

Pin No.	Pin Name	I/O	Description
78	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not connected)
79	DEFECT	I/O	Defect pin. Which becomes an input pin after reset and can be controlled externally. This becomes the defect monitor pin under control by command. (Not connected)
80	EFMO	O	EFM signal output pin. (Not connected)

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

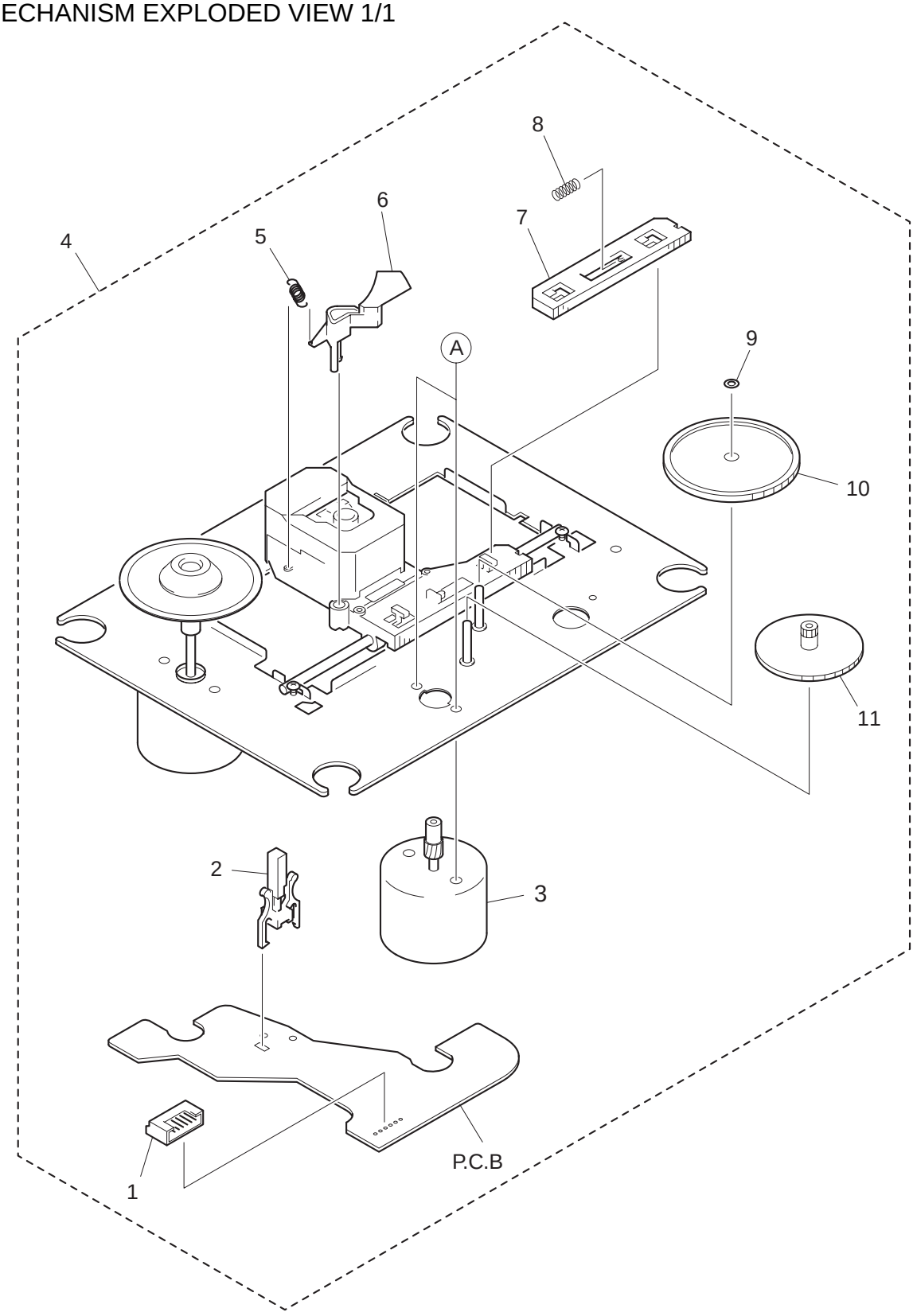
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-225-010		BELT,SQ1.0-63.3
2	84-ZG1-673-010		F-CABLE,5P 1.25 210MM BLACK N <EXCEPT ZD8RN1DM,ZD8RNDM>
2	84-ZG1-672-010		F-CABLE,5P 1.25 210MM WHITE N <ZD8RN1DM,ZD8RNDM>
3	87-045-364-010		MOTOR(BCH3B14)
4	84-ZG1-267-010		PULLEY,LOAD MO 8 <EXCEPT YKZD8RDF,ZD8RD>
4	81-ZG1-212-010		PULLY,LOAD MO<YKZD8RDF,ZD8RD>
5	84-ZG1-238-010		GEAR,WORM N
6	84-ZG1-248-010		SPR-C,WORM
7	84-ZG1-239-210		PULLY,WORM N
8	84-ZG1-008-210		TRAY,NO3<ZD8RD>
8	8A-ZG1-001-010		TRAY,NO3 BLU<EXCEPT ZD8RD>
9	8A-ZG1-210-010		HLDR,MAGNET 23<YKZD8RDF>
9	84-ZG1-243-210		HLDR,MAGNET N(J) <YZD8RDJM,ZD8RMDJM,YZD8RMDJM>
9	84-ZG1-289-010		HLDR,MAGNET NAT<ZD8RNDM>
9	81-ZG1-277-310		HLDR,MAGNET N <ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RD>
10	84-ZG1-259-010		SPR-P,WORM
11	84-ZG1-221-010		GEAR,MAIN TT<YKZD8RDF>
11	84-ZG1-269-010		GEAR,MAIN TT 4<EXCEPT YKZD8RDF>
12	84-ZG1-224-010		LEVER,TT<EXCEPT ZD8RNDM>
12	84-ZG1-288-010		LEVER,TT NAT<ZD8RNDM>
13	8A-ZG1-002-010		TURN TABLE,NO1 BLU<EXCEPT ZD8RD>
13	84-ZG1-005-210		TURNTABLE,NO1(*)<ZD8RD>
14	81-ZG1-239-010		S-SCREW,TT
15	8A-ZG1-201-010		S-SCREW,MECH 880
16	85-NFT-611-110		FF-CABLE 16P-1.0
17	84-ZG1-299-210		HLDR,MECHA NO3<EXCEPT ZD8RNDM>
17	8A-ZG1-203-010		HLDR,MECHA NO3 NAT<ZD8RNDM>
18	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
19	84-ZG1-211-010		SPR-E CAM S
20	84-ZG1-285-010		PLATE,MAGNET BLK<ZD8RN1DM>
20	81-ZG1-255-110		PLATE,MAGNET MK2<EXCEPT ZD8RN1DM>
21	83-ZG3-604-010		RING,MAG 2
22	83-ZG3-213-010		LVR,SW
23	84-ZG1-208-210		LEVER,CAM<YKZD8RDF>
23	84-ZG1-266-010		LEVER,CAN 8<EXCEPT YKZD8RDF>
24	84-ZG1-205-210		GEAR,TRAY (*)
25	81-ZG1-291-110		GEAR,TRAY RELAY NO3
26	84-ZG1-206-110		GEAR,RELAY<YKZD8RDF>
26	84-ZG1-274-010		GEAR,RELAY 8<EXCEPT YKZD8RDF>
27	84-ZG1-207-010		PULLEY,RELAY
28	84-ZG1-209-010		BELT,SQ1.8-117.7
29	84-ZG1-203-410		GEAR,MAIN CAM<ZD8RNDM>
29	84-ZG1-215-410		GEAR,MAIN CAM BLU<EXCEPT ZD8RNDM>
30	84-ZG1-011-010		REFLECTOR,CD <EXCEPT ZD8RN1DM,ZD8RNDM>
31	84-ZG1-216-310		SLIDE,MECHA CAM YEL <EXCEPT ZD8RNDM>
31	84-ZG1-204-310		SLIDER,MECHA CAM<ZD8RNDM>
32	84-ZG1-286-010		CHAS,MECHA NAT<ZD8RNDM>
32	84-ZG1-201-410		CHAS,MECHA<EXCEPT ZD8RNDM>
33	M8-ZZK-C90-070		KSM-880CAB
A	87-067-703-010		TAPPING SCREW, BVT2+3-10 <EXCEPT ZD8RN1DM,ZD8RNDM>
B	87-067-981-010		BVT2+3-6 BLK
C	87-251-070-410		U+2.6-3

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	91-564-722-110		CONN,PIN 6P
2	91-572-085-110		LEAF SWITCH
3	9X-264-655-010		SL MOTORR ASSY
4	M8-ZZK-C90-070		KSM-880CAB
5	92-647-416-020		SPRING EXTENSION
6	92-647-595-020		SHUTTER B
7	92-647-732-010		NS SLIDE RACK
8	92-647-742-010		SPRING COMPRESSION
9	93-321-813-110		POLI WASHER
10	92-647-407-010		GEAR A
11	92-647-408-020		GEAR B
A	93-713-786-510		SCREW,+P2-3

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

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0251431
Printed in Singapore